United States

Circuit Court of Appeals

For the Ninth Circuit.

Transcript of Record.

ANGELUS SANITARY CAN MACHINE COM-PANY, a Corporation, and HENRY L. GEUNTHER,

Appellants,

FILED

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vs.

RAY O. WILSON, ARTHUR D. SUMNER, FRANKLIN F. STETSON and LOS AN-GELES CAN COMPANY, a Corporation, Appellees.

VOLUME I.

(Pages 1 to 480, Inclusive.)

Upon Appeal from the United States District Court for the Southern District of California, Southern Division.

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Upon Appeal from the United States District Court for the Southern District of California, Southern Division.

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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in italic; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in italic the two words between which the omission seems to occur.]

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For Appellees:

RAYMOND IVES BLAKESLEE, Esq.,

727–30 California Building, Los Angeles, California.

CITATION ON APPEAL.

United States of America,—ss.

The President of the United States, to Ray O. Wilson, Arthur D. Sumner, Franklin F. Stetson, and Los Angeles Can Company (a Corporation), GREETING:

You are hereby cited and admonished to be and appear at a United States Circuit Court of Appeals for the Ninth Circuit, to be holden at the City of San Francisco, in the State of California, within thirty days from the date hereof, pursuant to an order allowing an appeal, of record in the Clerk's Office of the United States District Court for the Southern District of California, Southern Division, wherein Angelus Sanitary Can Machine Company (a corporation), and Henry L. Guenther,—appellants and you are appellees, to show cause, if any there be, why the decree rendered against the said appellants, as in the said order allowing appeal mentioned, should not be corrected, and why speedy justice should not be done to the parties in that behalf.

WITNESS, the Honorable JOHN S. PAR-TRIDGE, United States District Judge for the Northern District of California, designated by the presiding Judge of the United States Circuit Court of Appeals for the Ninth Circuit to hear and determine the above-entitled cause, this 11th day of August, A. D. 1924.

> JOHN S. PARTRIDGE, United States District Judge.

Due service and receipt of a copy of the within citation on appeal admitted this —— day of August, 1924.

Solicitors and Counsel for Plaintiffs-Appellees. United States of America,—ss:

On this 12th day of August, in the year of our Lord one thousand nine hundred and twenty-four, personally appeared before me, Edward W. Brewer, Jr., the subscriber, and makes oath that he delivered a true copy of the within citation to Raymond I. Blakeslee on the said 12th day of August, 1924.

EDWARD W. BREWER, Jr.

Subscribed and sworn to before me at Los Angeles, Cal., this 12th day of August, A. D. 1924. [Seal] PEARL M. STOUT, Notary Public in and for the County of Los Angeles, State of California. Filed Aug. 12, 1924.

In the United States District Court, Southern District of California, Southern Division.

IN EQUITY.

RAY O. WILSON, ARTHUR D. SUMNER, FRANKLIN F. STETSON, and LOS AN-GELES CAN COMPANY, a Corporation, Plaintiffs.

vs.

ANGELUS SANITARY CAN MACHINE COM-PANY, a Corporation, and HENRY L. GUENTHER,

Defendants.

BILL OF COMPLAINT.

- For Infringement of U. S. Letters Patent Nos. 1,124,553, 1,203,295, 1,250,406, and 1,301,348.
- To the Honorable, the Judges of the District Court of the United States, in and for the Ninth Circuit, Southern District of California, Southern Division:

Ray O. Wilson, Arthur D. Sumner and Franklin F. Stetson, all citizens of the United States and residents of Los Angeles, County of Los Angeles, State of California, and Los Angeles Can Company, a Corporation of California, having its principal place of business at Los Angeles, California, in said Southern District of California, Southern Division thereof, bring this their bill of complaint against Angelus Sanitary Can Machine Company, a corporation of California, having a place of business at said Los Angeles, California, in said Southern District of California, Southern Division thereof, and Henry L. Guenther, a citizen of the United States and a resident of said Los Angeles, California, in said Southern District of California, Southern Division thereof, and thereupon your orators complaining, show unto your Honors:

I.

That this is a cause of action based upon infringement of letters patent for inventions issued by the United States of America.

II.

That heretofore and prior to the 19th day of December, [1*] 1913, your orators Ray O. Wilson and Arthur D. Sumner, were the original, first and joint inventors of improvements in tools for Capping and Double-seaming Cans, not known or used by others before their invention or discovery thereof, or patented or described in any printed publication in the United States of America, or any foreign country before their invention or discovery thereof, or more than two years prior to their application for letters patent thereon, in the United States of America, and not in public use or on sale in the

^{*}Page-number appearing at foot of page of original certified Transcript of Record.

United States of America, for more than two years prior to said application for letters patent therefor, and not abandoned, and not patented in any foreign country on an application filed more than twelve months prior to the filing of said application in the United States.

That your orators Ray O. Wilson and Arthur D. Sumner so being the original, joint and first inventors of said improvements in Tools for Capping and Double-Sealing Cans, to wit, on the 19th day of December, 1913, made application in writing in due form of law to the Commissioner of Patents, in accordance with the then existing laws in such case made and provided, and complied in all respects with the conditions and requirements of said law; that by an instrument in writing duly recorded in the United States Patent Office, your orators Ray O. Wilson and Arthur D. Sumner, assigned fifty-one hundredths of the right, title and interest in and to said invention and the letters patent to be issued thereon, to your orator Los Angeles Can Company; that thereafter such proceedings were duly and regularly had and taken in the matter of said applicaion, that, to wit, on the 12th day of January, 1915, letters patent of the United States No. 1,124,553 were duly and regularly granted, issued and delivered by the Government of the United States to your orators Ray O. Wilson and Arthur D. Sumner and Los Angeles Can Company, jointly, according to law, whereby was granted and secured to your orators Ray [2] O. Wilson and Arthur D. Sumner and Los Angeles Can Com-

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pany, their heirs, legal representatives, successors and assigns, for the full term of seventeen (17) years from and after said 12th day of January, 1915, the joint and exclusive right, liberty and privilege, to make, use and vend the said invention throughout the United States of America and the territories thereof; that the said letters patent were duly issued in due form of law under the seal of the United States Patent Office, and duly signed by the acting United States Commissioner of Patents, he having full authority to sign the same, all as will more fully appear from said original letters patent, or duly certified copy thereof, which are ready in court to be produced by your orators; and that prior to the granting and issuance and delivery of said letters patent, all proceedings were had and taken which were required by law to be had and taken prior to the issuance of letters patent for new and useful inventions.

III.

That heretofore and prior to the 10th day of August, 1914, your orators Ray O. Wilson and Arthur D. Sumner were the original, first and joint inventors of improvements in Can Heading Machines, not known or used by others before their invention or discovery thereof, or patented or described in any printed publication in the United States of America, or any foreign country before their invention or discovery thereof, or more than two years prior to their application for letters patent thereon, in the United States of America, and not in public use or on sale in the United States of America, for more than two years prior to said application for letters patent therefor, and not abandoned, and not patented in any foreign country on an application filed more than twelve months prior to the filing of said application in the United States.

That your orators Ray O. Wilson and Arthur D. Sumner, so being the original, joint and first inventors of said improvements in Can Heading Machines, to wit, on the 10th day of [3] August, 1914, made application in writing in due form of law to the Commissioner of Patents, in accordance with the then existing laws in such case made and provided, and complied in all respects with the conditions and requirements of said law; that by instrument in writing duly recorded in the an United States Patent Office, your orators Ray O. Wilson and Arthur D. Sumner, did assign to your orator Ray O. Wilson and to your orator Arthur D. Sumner and to your orator Franklin F. Stetson, respectively, thirty one-hundredths, and thirty onehundredths and forty one-hundredths, of the right, title and interest in and to said invention and any letters patent therefor; that thereafter such proceedings were duly and regularly had and taken in the matter of said application, that, to wit, on the 31st day of October, 1916, letters patent of the United States No. 1,203,295, were duly and regularly granted, issued and delivered by the Government of the United States to your orators Ray O. Wilson and Arthur D. Sumner and Franklin F.

Stetson, jointly, according to law, whereby there was granted and secured to your orators Ray O. Wilson and Arthur D. Sumner and Franklin F. Stetson, their heirs, legal representatives and assigns, for the full term of seventeen (17) years from and after said 31st day of October, 1916, the joint and exclusive right, liberty and privilege, to make, use and vend the said invention throughout the United States of America and the territories thereof; that the said letters patent were duly issued in due form of law under the seal of the United States Patent Office, and duly signed by the acting United States Commissioner of Patents, he having full authority to sign the same, all as will more fully appear from said original letters patent, or duly certified copy thereof, which are ready in court to be produced by your orators; and that prior to the granting and issuance and delivery of said letters patent, all proceedings were had and taken which were required by law to be had and taken prior to the issuance of letters patent for new and useful inventions. [4]

IV.

That heretofore and prior to the 14th day of January, 1916, your orators Ray O. Wilson and Arthur D. Sumner were the original, first and joint inventors of improvements in Can-Top-Feeding Devices, not known or used by others before their invention or discovery thereof, or patented or described in any printed publication in the United States of America, or any foreign country before their invention or discovery thereof, or more than two years prior to their application for letters patent thereon, in the United States of America, and not in public use or on sale in the United States of America, for more than two years prior to said application for letters patent therefor, and not abandoned, and not patented in any foreign country on an application filed more than twelve months prior to the filing of said application in the United States.

That your orators Ray O. Wilson and Arthur D. Sumner so being the original, joint and first inventors of said improvements in Can-Top-Feeding Devices, to wit, on the 14th day of January, 1916, made application in writing in due form of law to the Commissioner of Patents, in accordance with the then existing laws in such case made and provided, and complied in all respects with the conditions and requirements of said law; that by an instrument in writing duly recorded in the United States Patent Office, your orators Ray O. Wilson and Arthur D. Sumner, did assign unto your orator Franklin F. Stetson, forty one-hundredths of the right, title and interest in and to said invention, and in, to and under the letters patent to issue therefor; that thereafter such proceedings were duly and regularly had and taken in the matter of said application, that, to wit, on the 18th day of December, 1917, letters patent of the United States No. 1,250-406, were duly and regularly granted, issued and delivered by the Government of the United States to your orators Ray O. Wilson and Arthur D. Sum-

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ner and Franklin F. Stetson, jointly, according to law, whereby there was granted and secured to your orators Ray O. Wilson and Arthur D. [5] Sumner and Franklin F. Stetson, their heirs, assigns and legal representatives, for the full term of seventeen (17) years from and after said 18th day of December, 1917, the joint and exclusive right, liberty and privilege, to make, use and vend the said invention throughout the United States of America and the territories thereof; that the said letters patent were duly issued in due form of law under the seal of the United States Patent Office, and duly signed by the acting United States Commissioner of Patents, he having full authority to sign the same, all as will more fully appear from said original letters patent, or duly certified copy thereof, which are ready in court to be produced by your orators; and that prior to the granting and issuance and delivery of said letters patent, all proceedings were had and taken which were required by law to be had and taken prior to the issuance of letters patent for new and useful inventions.

V.

That heretofore and prior to the 14th day of January, 1916, your orators Ray O. Wilson and Arthur D. Sumner, were the original, first and joint inventors of improvements in Can-Feeding Devices, not known or used by others before their invention or discovery thereof, or patented or described in any printed publication in the United

vs. Ray O. Wilson et al.

States of America, or any foreign country before their invention or discovery thereof, or more than two years prior to their application for letters patent thereon, in the United States of America, and not in public use or on sale in the United States of America, for more than two years prior to said application for letters patent therefor, and not abandoned, and not patented in any foreign country on an application filed more than twelve months prior to the filing of said application in the United States.

That your orators Ray O. Wilson and Arthur D. Sumner so being the original joint and first inventors of said improvements in Can-Feeding Devices, to wit, on the 14th day of [6] January, 1916, made application in writing in due form of law to the Commissioner of Patents, in accordance with the then existing laws in such case made and provided, and complied in all respects with the conditions and requirements of said law; that by an instrument in writing, duly recorded in the United States Patent Office, your orators Ray O. Wilson and Arthur D. Sumner, did assign unto your orator Franklin F. Stetson forty one-hundreths of the right, title and interest in and to said invention, and in, to and under the letters patent to issue therefor; that thereafter such proceedings were duly and regularly had and taken in the matter of said application, that, to wit, on the 22d of April, 1919, letters patent of the United States No. 1,301,348, were duly and regularly granted, is-

sued and delivered by the Government of the United States to your orators Ray O. Wilson and Arthur D. Sumner and Franklin F. Stetson, jointly, according to law, whereby there was granted and secured to your orators Ray O. Wilson and Arthur D. Sumner and Franklin F. Stetson, their heirs, legal representatives and assigns, for the full term of seventeen (17) years from and after said 22d day of April, 1919, the joint and exclusive right, liberty and privilege, to make, use and vend the said invention throughout the United States of America and the territories thereof; that the said letters patent were duly issued in due form of law under the seal of the United States Patent Office, and duly signed by the acting United States Commissioner of Patents, he having full authority to sign the same, all as will more fully appear from said original letters patent, or duly certified copy thereof, which are ready in Court to be produced by your orators; and that prior to the granting and issuance and delivery of said letters patent, all proceedings were had and taken which were required by law to be had and taken prior to the issuance of letters patent for new and useful inventions. [7]

VI.

That the invention or inventions of each of said letters patent is or are capable of being conjointly used with the invention or inventions of each of the others of said letters patent, and has been or have been so conjointly used by defendants and each of defendants in infringement of said letters patent.

VII.

That the inventions set forth, described and claimed in and by said letters patent hereinbefore mentioned are of great value and have been extensivly practiced by your orators; and upon each and every one of such machines, devices or tools disclosed and claimed in and by said letters patent aforesaid, and made or used by your orators, the word "Patented," together with the day and date of the issuance of said letters patent and each of the same, has been marked or stamped thereon, thereby notifying the public of the said letters patent to such extent as the public may have had access to the same; and that the said defendants long prior to the commencement of this suit have been notified in writing of the granting and issuance of each of said letters patent aforesaid, and of the rights of your orators thereunder, and demand has been made upon said defendants to respect the said letters patent and not to infringe thereon, but notwithstanding such notice, repeatedly made, the defendants have continued to make and use said machines, devices and tools embodying the said inventions of said letters patent aforesaid, as hereinafter more particularly set forth.

VIII.

And your orators further show to your Honors that the trade and public have generally respected and acquiesced in the validity and scope of said letters patent aforesaid and each of same, and in the exclusive rights thereunder of your orators and in the rights of your orators under which rights they

and each of same have practiced said inventions of said letters patent aforesaid; and save and except for the infringement thereof by defendants, as hereinafter set forth, and a possibly [8] limited number of other parties, your orators have had and enjoyed the exclusive right, liberty and privilege, since the date of issuance of each of said letters patent, of manufacturing, using and selling said machines, devices and tools, embodying and containing the inventions and each of same set forth and claimed in said letters patent aforesaid, and but for the wrongful and infringing acts of defendants, as hereinafter set forth, and said limited number of possible other parties, your orators would now continue to enjoy the said exclusive rights, and the same would be of great and incalculable benefit and advantage to your orators.

IX.

And your orators further show unto your Honors and allege upon information and belief, that notwithstanding the premises, but well knowing the same, and without license or consent of your orators or either of them, and in violation of said letters patent and each of same, and of your orators' rights thereunder, the defendants herein have, within the County of Los Angeles and State of California, and within the Southern District of California, Southern Division, aforesaid, and elsewhere, within the seven (7) years last past, jointly and severally and directly or contributorily, made, used and sold, and are now making, using and selling the tools, machines and devices and the like containing and em-

bracing the inventions and each of same, described, claimed and patented in and by each of said letters patent aforesaid, and have jointly and severally and directly or contributorily infringed upon the exclusive rights secured to your orators, Ray O. Wilson, Arthur D. Sumner, Franklin F. Stetson and Los Angeles Can Company, by virtue of said letters patent aforesaid and each of same, and continue to and now are jointly and severally and directly or contributorily infringing thereon, and that the tools, machines and devices and the like embodying said inventions so made, used and sold by the defendants and each of same, were and are infringements upon said aforesaid letters patent and each of same, of your orators Ray O. Wilson, [9] Arthur D. Sumner, Franklin F. Stetson and Los Angeles Can Company, and each of said machines, tools or devices or the like contains and has contained in it and embodies or practices and has embodied or practiced said patented inventions, and each of same; and that although requested so to do, the defendants and each of same have and has refused to cease and desist from the infringements aforesaid, and are now making, using and selling the tools, devices and machines and the like containing and embracing and embodying and practicing the said patented inventions and each of same, and threaten and threatens and intend and intends to continue so to do, and will continue so to do unless restrained by this court; and is and are realizing, as your orators are informed and believe, large gains, profits and advantages, the exact amount

of which is unknown to your orators; and that by reason of the premises and unlawful acts of the defendants aforesaid, your orators have suffered and are suffering great and irreparable injury and damage.

Х.

That said defendant Henry L. Guenther has directed, promoted, devised and continued the said acts of infringement committed and performed both by said defendant Angelus Sanitary Can Machine Company and himself, and has personally and as an officer of said defendant Angelus Sanitary Can Machine Co., caused such acts of infringement aforesaid, and has joined in individual as well as official capacity with said defendant Angelus Sanitary Can Machine Company, in said infringement and infringements, as aforesaid.

XI.

That for all the reasons herein complained of, your orators have no plain, speedy or adequate remedy at law, and are without remedy, save in a court of equity, where matters of this kind are properly cognizable and relievable.

To the end, therefore, that the said defendants and each of the same may, if they can show why your orators should not have [10] the relief herein prayed, and may according to the best and utmost of their knowledge, recollection, information and belief, but not under oath (an answer under oath being hereby expressly waived), full, true and perfect answer make to all and singular the matters hereinabove charged, your orators Ray O. Wilson, Arthur D. Sumner, Franklin F. Stetson and Los Angeles Can Company pray that the defendant may be decreed to account for and pay over to your orators Ray O. Wilson, Arthur D. Sumner, Franklin F. Stetson and Los Angeles Can Company, the gains and profits realized by the defendants and each of them, from and by reason of the infringement aforesaid, together with costs of suit.

And that the defendants may be decreed to account for and pay unto your orators the damages sustained by your orators by reason of such violation and infringement of your orators' rights, and that the defendants and each of them be restrained from any further violation of said rights.

Your orators pray that your Honors may grant a writ of injunction issuing out of and under the seal of this Honorable Court, perpetually enjoining and restraining said defendants Angelus Sanitary Can Machine Company and Henry L. Guenther, their attorneys, officers, agents, directors, workmen, servants, associates and representatives, and each and every of them, from any further manufacture or use or any sale in any manner, directly or indirectly or contributorily, of any of said inventions or any part or embodiment thereof, or the embodiment or practice of any part thereof, in violation of the rights of your orators Ray O. Wilson, Arthur D. Sumner, Franklin F. Stetson and Los Angeles Can Company, as aforesaid, and that the machines, tools and devices and the like now in the possession or use or under the control of said defendants may be destroyed under order

of this Court, and that your Honors upon rendering the decree above prayed, may assess or cause to be assessed in addition to the profits to be accounted for as aforesaid, the damages your orators have sustained by reason of such [11] infringement, and that your Honors may increase the actual damages so assessed to a sum equal to three times the amount of such assessment under the circumstances of the wilful and unjust infringement by said defendants as herein set forth; and that you orators may have such other and further relief as to your Honors may seem proper and meet and in accordance with the equity of the case and with good conscience.

May it please your Honors to grant unto your orators the writ of subpoena issued out of and under the seal of this court directed to the defendants Angelus Sanitary Can Machine Company, and Henry L. Guenther, commanding them on a day certain and under a certain penalty fixed by law, to be and appear before this Honorable Court then and there to answer this bill of complaint and to stand to and perform and abide by such further orders and decrees as to your Honors may seem meet in the premises. And your orators will ever pray. RAY O. WILSON. ARTHUR D. SUMNER. FRANKLIN F. STETSON. LOS ANGELES CAN COMPANY. By RAYMOND IVES BLAKESLEE, J. CALVIN BROWN, Solicitors and Counsel for Plaintiffs. RAYMOND IVES BLAKESLEE, J. CALVIN BROWN, Solicitors and Counsel for Plaintiffs. 726–30 California Bldg., Los Angeles, Cal. Filed Dec. 6, 1921. [12]

[Title of Court and Cause.]

ANSWER.

Come now the defendants above named, and for answer to plaintiffs' bill of complaint, deny, admit and aver as follows:

I.

Defendants admit that this is a suit based upon alleged infringement of letters patent issued by the United States of America, but deny that said bill of complaint states a cause of action against these defendants or either of them and deny that the said letters patent, or any of them, are/is for a patentable invention.

II.

Answering Paragraphs II, III, IV and V, re-

spectively, of said bill of complaint, defendants admit that there have been issued the following letters patent specified in said Paragraphs, to wit: No. 1,124,553, No. 1,203,295, No. 1,250,406 and No. 1,301,348, issued, respectively, January 12th, 1915, October 31st, 1916, December 18th, 1917 and April 22d, 1919, but deny that said patents were legally granted to plaintiffs, or any of them, for the term of seventeen (17) years or for any term whatever; or that said patents, or [13] any of them, legally granted the joint or exclusive or any right of making, or using, or vending the alleged improvements or inventions referred to in said several letters patent sued upon, but that said letters patent, and each of them, are numbered, respectively, 1,124,553, 1,203,295, 1,250,406 and 1,301,348, and each and all of them, are invalid and of no effect; and further answering said Paragraphs II, III, IV and V of said bill of complaint defendants make the following denials, on information and belief, to wit:

(1) Deny that heretofore and prior to the respective dates alleged to wit, the 19th day of December, 1913, the 10th day of August, 1914, and the 14th day of January, 1916, or at any other time, or at all, Ray O. Wilson and Arthur D. Sumner, parties plaintiff in this action, were, or that either of them was, the original, first or/and joint or any inventors of Improvements in Tools for Capping and Double-Seaming Cans, Improvements in Can Heading Machines, Improvements in Can Top Feeding Devices and Improvements in Can Feeding Devices, as set forth in Paragraphs II, III, IV and V of said bill of complaint.

(2) Deny that said inventions, and each of them, were not known or used by others prior to the 19th day of December, 1913, 10th day of August, 1914 and 14th day of January, 1916.

(3) Deny that said alleged inventions, and each of them, had not been patented or described in any printed publication in the United States of America, or any foreign country, before the alleged invention or discovery thereof by Ray O. Wilson and Arthur D. Sumner, parties plaintiff herein, or more than two years prior to their applications for United States letters patent thereon. [14]

(4) Deny that said alleged inventions, and each of them, were not in public use or on sale in the United States for more than two years prior to said applications, and each of them, for letters patent therefor.

(5) Deny that said alleged inventions, and each of them, were not abandoned.

(6) Deny that said alleged inventions, and each of them, were not patented in any foreign country on applications filed more than twelve months prior to the filing of said applications, and each of them, in the United States.

Further answering said Paragraphs II, III, IV and V defendants aver, and so state the fact to be, that the alleged invention of patent No. 1,124,553 was not the joint invention of said patentees, Ray O. Wilson and Arthur D. Sumner, but was the

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sole invention of said Ray O. Wilson; and that the alleged invention of patent No. 1,203,295 was not the joint invention of said patentees, Ray O. Wilson and Arthur D. Sumner, but was the sole invention of said Ray O. Wilson; and that the alleged invention of patent No. 1,250,406 was not the joint invention of said patentees, Ray O. Wilson and Arthur D. Sumner, but was the sole invention of said Ray O. Wilson; and that the alleged invention of patent No. 1,301,348 was not the joint invention of said patentees, Ray O. Wilson and Arthur D. Sumner, but was the sole invention of said Ray O. Wilson; and that the alleged invention of patent No. 1,301,348 was not the joint invention of said patentees, Ray O. Wilson and Arthur D. Sumner, but was the sole invention of said Ray O. Wilson; and that said letters patent were fraudulently obtained as a consequence of said joint applications in each and every instance.

Further answering said Paragraph II said defendants are not advised, except by the bill of complaint, as to what interest, if any, the Los Angeles Can Company has in said [15] letters patent No. 1,124,553 and, therefore, deny that it has any interest therein and calls for strict proof thereof.

Further answering Paragraphs III, IV and V, defendants are not advised, except by the bill of complaint as to what interest, if any, the plaintiff, Franklin F. Stetson, has in patents No. 1,-203,295, No. 1,250,406 and No. 1,301,348, or any of them, and, therefore, deny that he has any interest therein.

III.

Answering Paragraph VI of said bill of complaint, defendants deny, on information and belief, that the alleged invention or inventions of
each or any of said letters patent is or are capable of conjoint or any use with each or any of the others of said inventions, or have been, or has been, so conjointly or otherwise used by defendants, or either of them, in infringement of said alleged letters patent, or any of them.

IV.

Answering Paragraph VII of said bill of complaint, defendants deny that the inventions set forth, described and claimed in said alleged letters patent, and each of them, are of great or any value; and deny that plaintiffs have extensively practiced said inventions, or any of them, or placed same in public use or in any use; and defendants further deny, on information and belief, that upon each and every one of such machines there has been marked or stamped the word "Patented," together with the day and date of the issuance of said alleged letters patent, or any of them, but defendants admit that a short while before the bringing of this action defendants received what purported to be a written notice from plaintiffs in the tenor as alleged in Paragraph VII of the bill [16] of complaint; but defendants deny that they have ever infringed upon said letters patent, or any of them, or that they have any intention of infringing, or that they have made, or used, or sold any machines, devices or tools embodying the inventions of said letters patent aforesaid, or any of them; and defendants aver that the aforesaid notice of plaintiffs was solely for the purpose of attempting to intimidate defendants in their lawful pursuits of business and in disregard of defendants' rights and in an attempt to injure defendants.

And defendants further show that immediately on receipt of said notice purported to come from plaintiffs, defendants, through their attorneys, requested of plaintiffs' attorney, that, in view of the very general charge of infringement and the fact that the patents were not only complex in their mechanical constructions but there were a vast number of claims contained in each of the four patents, investigation might be expedited if plaintiffs would point out any particular claims of any particular patent which plaintiffs might think these defendants infringed; and that despite the reasonableness of defendants' request, plaintiffs forthwith proceeded to file the present bill of complaint and have at no time stated, either in this bill of complaint or otherwise, what claims, if any, of any particular patent herein in suit are charged to be infringed.

V.

Answering Paragraph VIII of the bill of complaint, defendants deny that the trade or public has generally or at all respected or acquiesced in the validity or scope of said letters patent aforesaid, or any of them, or in any rights thereunder of plaintiffs, or any of them, and deny that [17] plaintiffs have ever practiced said inventions, or any of them, and deny that defendants have ever infringed said patents, or any of them; and defendants aver that if the plaintiffs, or any of them, have suffered any loss of trade or patronage it has not been due to any infringement by these defendants but due to the superior quality of defendants' product and the fact that defendants' machines work on an entirely different principle from the alleged patented machines of plaintiffs.

VI.

Answering Paragraph IX of the bill of complaint, defendants deny that they, or either of them, have operated in violation of any alleged patent rights of said plaintiffs, or any of them, and deny that they have within the County of Los Angeles and State of California, and within the Southern District of California, Southern Division aforesaid or elsewhere, or within seven (7) years last past, or at any time, jointly or severally, directly, contributorily or otherwise made or used, or sold, or that they, or either of them, are now making, or using, or selling any tools or machines or devices containing or embracing the alleged inventions of said letters patent, or any of them, or claimed or patented in or by said letters patent, or any of them, and deny that they have, jointly or severally, directly or contributorily, or otherwise infringed upon the exclusive or any rights purporting to be secured to the plaintiffs, or any of them, by virtue of said letters patent aforesaid, or any of them; and defendants deny that they are continuing to or now are, jointly or severally, or directly or contributorily, or otherwise infringing thereon, and deny that the tools, machines or devices sold by defendants, or either of them, embody any of said alleged inventions of said pat-

ents in [18] suit; and deny that the same were or are infringements upon said letters patent in suit, or any of them, or any rights of plaintiffs, or any of them; and deny that said machines, or tools, or devices ever have contained or now contain or embody or practice, or have embodied or practiced the patented inventions, or any of them, and deny that they are threatening or intending to continue any infringement of any alleged patent rights of plaintiffs, or any of them; and defendants deny that the profits, if any, that they have derived from their business have not been entirely legitimate and that the profits, if any, are due to any alleged infringement of any alleged rights of the plaintiffs, or any of them; and, furthermore, defendants deny that they have committed any unlawful acts and deny that the plaintiffs, or any of them, have suffered or are suffering any great or irreparable injury or damages by reason of the acts of these defendants, or either of them.

VII.

In answer to Paragraph X of said bill of complaint defendant, Henry L. Guenther, admits that he is an officer of the defendant corporation, Angelus Sanitary Can Machine Company, but denies that he has directed, promoted, devised or continued, or countenanced any acts by himself individually or as an officer of said Angelus Sanitary Can Machine Company, in infringement of any rights lawfully secured to plaintiffs by said letters patent, and each of them.

VIII.

Without waiving any of the matters and things above set forth, but repeating and insisting upon the same, defendants further answering say: [19]

That said bill of complaint fails to state a cause of action against these defendants, or either of them:

(a) For that this Court has no jurisdiction to entertain a suit for any alleged infringement occurring more than six (6) years prior to the bringing of suit, whereas Paragraph IX of the bill of complaint alleged infringement "within the seven (7) years last past" (U. S. R. S., Section 4921).

(b) For that there is no allegation in the bill of complaint that the plaintiff, Los Angeles Can Company, was, either at the time of bringing the bill of complaint or during the said seven (7) year period, a corporation.

(c) For that the bill of complaint nowhere states that the said plaintiffs, or any of them, owned any interest in any of said letters patent in suit during the entire period for which damages and profits are demanded.

(d) For that the bill of complaint fails to specify any particular claims or any claims of any particular patent or any patent sued on as being infringed by these defendants, or either of them.

(e) For that the bill of complaint fails to set forth a cause of action for contributory infringement against either of these defendants.

IX.

For a further and particular defense defendants

allege that by Act of Congress of March 3d, 1897, Chapter 391, paragraph 6, 29 Stat. L. 694 (Section 4921, U. S. R. S.), the plaintiffs are prohibited from recovery of profits or damages for any infringement committed more than six (6) years befor the filing of the bill of complaint herein. [20]

Х.

And for a further and particular defense defendants aver that there is a misjoinder of parties plaintiff; and, further, that the bill of complaint fails to state a joint cause of action in favor of the several plaintiffs and against these defendants, or either of them, and for that it asserts that one group of plaintiffs owns one of the patents or any interest therein and another group of plaintiffs owns certain other of said patents or an interest therein.

XI.

And for a further and particular defense defendants are informed and believe, and so state the fact to be, that the said alleged inventions set forth in said letters patent Nos. 1,124,553, 1,203,295, 1,-250,406 and/or 1,301,348, and each of them which are here in suit do not possess the quality of novelty nor of invention, and that said letters patent are, and each of them is, invalid in all respects for lack of patentable novelty and lack of invention.

XII.

And for a further and particular defense defendants state that Ray O. Wilson and Arthur D. Sumner, singly or jointly, was/were not the original, or first, or joint, or any inventor or discoverer of any material or substantial part of the thing claimed as patented by said letters patent Nos. 1,124,553, 1,203,295, 1,250,406 and/or 1,301,348; and that said inventions, and each of them have/ has been previously described and patented as hereinafter mentioned by printed publications and letters patent prior to the alleged invention or discovery thereof by said Arthur D. Sumner and Ray O. Wilson, or either of them, as follows, to wit: [21]

Jensen-	443,445—December	23, 1890,
Walsh—	492,076—Feb.	21, 1893,
Smallwood-	- 523,013—July	17, 1894,
Austin-	532,518—January	15, 1895,
Adriance	747,671—December	22, 1903,
Gillette—	770,803—Sept.	27, 1904,
Brenzinger-	- 813,482—February	27, 1906,
Wood-	830,551—Sept.	11, 1906,
Black-	858,785—July	2, 1907,
Wegner-	964,721—July	19, 1910,
Gray—	994,456—June	6, 1911,
Haight—	1,029,681—June	18, 1912,
Johnson-	1,074,325—Sept.	30, 1913,
Conradi—	1,077,393—November	4, 1913,
Nichols—	1,096,937—May	19, 1914,
Wagner-	1,104,751—July	21, 1914,
Miller—	1,106,884—August	11, 1914,
Woodland-	1,135,602—March	30, 1915,
Warme-	1,151,840—August	31, 1915,
Kruse—	1,152,188—August	31, 1915,

Woodland— 1,197,569—Sept. 5, 1916,

Woodland— 1,203,676—November 7, 1916,

Fleischer — 1,212,754—January 16, 1917, and also others which are at this time unknown to these defendants, or either of them, but which defendants pray leave to set forth by amendment to this answer when discovered.

XIII.

Defendants further answering state, on information and belief, that prior to the dates of application for said [22] letters patent, and each of them, by Arthur D. Sumner and Ray O. Wilson, mechanical devices substantially identical with those of the patents in suit, and each of them, were and have been in public use and on sale in this country and were known to other persons, but whose names and addresses are unknown to defendants at this time but defendants pray leave to set forth by amendment to this answer said names and addresses when discovered.

XIV.

Defendants further show that plaintiffs have maliciously and without warrant or cause but with the purpose of injuring these defendants, and each of them, in their legitimate business committed slander of title to such business against these defendants, and either of them, in that plaintiffs have falsely represented or caused to be represented to the public at large and to prospective customers of defendants in particular that the machines and articles manufactured by these defendants under defendants' special designs and patents were or are infringements upon plaintiffs' alleged rights under their said patents here in suit and by such wrongful acts of plaintiffs these defendants have suffered irreparable injury and damage and large pecuniary loss.

WHEREFORE, and for the reasons aforesaid, these defendants, and each of them, deny the equity of plaintiff's bill of complaint herein and all manner of wrongful and unlawful acts wherewith in the said bill of complaint these defendants, or either of them, are charged, and further denying the right of plaintiffs to the relief or any part thereof sought against these defendants, or either of them, in said bill of complaint, all of which matters and things these defendants are ready and willing to aver, maintain and this Honorable Court shall direct prove as [23] and humbly pray to be hence dismissed with their reasonable costs on this behalf.

CHAS. E. TOWNSEND,

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WM. A. LOFTUS,

Attorneys for Defendants.

JAMES E. KELBY,

Of Counsel.

Filed Feb. 11, 1922. [24]

[Title of Court and Cause.]

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66*

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BILL OF PARTICULARS. *

(d) Patent No. 1,124,553, for Tool for Capping and Double-Seaming Cans, dated January 12, 1915, 32 Angelus Sanitary Can Machine Co. et al.

no infringement charged by defendants of the claims of this patent.

[Title of Court and Cause.]

MASTER'S REPORT ON TRIAL OF PATENT INFRINGEMENT SUIT.

This suit is for alleged infringement of three allied patents: (1) a can feeding device; (2) a can top feeding device; (3) a double seaming machine.

Nature of the Reference. The case was referred to the Master for trial. The reference is to hear and report, not to hear and determine. The report will therefore be more detailed and lengthy than otherwise.

It is a restricted reference which renders the report advisory in its character. Findings of the Master, however, under this order of reference, in my opinion, will be attended with that presumption of correctness than comes from the fact that all the witnesses whose evidence as taken have appeared before the trial officer, who has thus had the opportunity of judging their credibility, and more clearly understanding the meaning of their statements. The report may also be attended with a certain degree of persuasiveness by reason of the fact that the Master has twice visited the plant of the plaintiffs and watched the operation of their • commercial device with the experts of both sides in attendance explaining to him the various parts, functions and modes of operation thereof; and likewise visited the plant of defendant three times, with the same sort of explanations given him there; and also visited the plant of the American Can Company at Los Angeles in company with the parties, their attorneys and experts and there was shown and had explained to him other types of the same kind of machines.

The Hearing. In accordance with the order of reference [52] the case was called for hearing on Thursday, December 21, 1922, Raymond I. Blakeslee, Esq., of Messrs. Blakeslee and Brown of Los Angeles, California, appearing for plaintiffs and Charles E. Townsend, Esq., of San Francisco, California, appearing for the defendants, and with Messrs. Kelby & Lawson, attorneys of record, and thereafter the proofs of the parties were heard, adjournments being taken from time to time until September 6, 1923, when the case was submitted, and afterwards written briefs were filed and the case considered by the Master.

Master's Draft Report and Exceptions Thereto. On November 10, 1923, the Master concluded his draft report and submitted copies thereof to counsel for the parties. On December 4, 1923, plaintiffs filed their exceptions and suggestions in regard thereto which the Master immediately considered, making notes of what seemed proper to include in the final report. The following day the defendants submitted a paper entitled "Defendants' Objections to Draft Report of Special Master in Chan-

at

cery" and likewise "Defendants' Requested Findings of Fact and Conclusions of Law Submitted to the Master after examination of the Draft Report." All these papers have been carefully considered and additions, amendments and corrections have been made of the Draft Report, which report so changed is the Report now submitted.

The Evidence. A true transcript of the evidence and proceedings, together with comments and arguments of counsel made during the course of the proceedings, was taken stenographically by John P. Doyle and Ross Reynolds, Official reporters of this Court, and the same in thirty-eight pamphlet volumes of 3451 pages is herewith returned.

Exhibits. A large number of physical and documentary exhibits were also received in evidence and marked as set forth in the list of exhibits appearing in the general index with said pamphlet volumes of the evidence. These exhibits likewise are herewith separately returned. [53]

Motion to dismiss one party plaintiff. During the course of hearing, near the conclusion thereof, a motion was made to dismiss the Los Angeles Can Co., a corporation, as a party plaintiff on the ground that it was not a necessary party plaintiff, and it is recommended that said motion be granted.

Reserved Rulings. From time to time during the trial the Special Master, in cases of doubt, took occasion to reserve rulings on certain objections. I have carefully considered the oral testimony, the exhibits and written briefs of counsel and have formed my conclusions thereon. Much of the evidence submitted is of small value in the final conclusion, but has been received in consonance with a broad scope of a hearing in equity. It is not worth while to go through the record and check over each case of a reserved ruling and decide each instance with care as to its inclusion or exclusion. It will save time and do no harm to either party if, as to my reserved rulings, the objection be now overruled, the evidence admitted and exceptions allowed to the party making the objection.

Patents alleged to be Infringed. The suit is one in the ordinary form seeking an injunction and an accounting arising out of claimed infringement of three letters patent.

Patent Exhibit 1. The first is for a can feeding device. The application was filed January 14, 1916, and patent issued April 22, 1919, No. 1,301,348 to Ray O. Wilson and Arthur D. Sumner, assignors of 40/100 to Franklin F. Stetson. The mechanism patented is adapted to receive, space, time and deliver cans over a disk with can engaging members reciprocating through slots therein to advance cans through a chute of curved rails over its face, and with various other features which will be discussed more in detail hereafter.

Patent Exhibit 2. The second patent is for a can-top feeding device. The application was filed January 14, 1916, [54] the same date as the can feeding device. The patent was issued December 18, 1917, No. 1,250,406, to Ray O. Wilson and Arthur D. Sumner of Los Angeles, California, assignors of 40/100 to Franklin F. Stetson of the

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same place. The mechanism patented is adapted to receive cans from the can feeding device in depressions on the periphery of a disk which carry it around to the double seaming machine, the can tripping a finger in its passage so as to release a bottom cap from a stack of caps in a can-top rack, said bottom cap being engaged and advanced by a finger on the disk conveying it on a pair of rails directly above the can carried by the disk.

Patent Exhibit 3. The third patent is for a can heading machine or a double seamer. The application was filed August 10, 1914, about a year and a half prior to filing the two applications above described. The patent was issued October 31, 1916, No. 1,203,295 to Ray O. Wilson and Arthur D. Sumner of Los Angeles, California, assignors of 30/100 to said Wilson and 30/100 to said Sumner and 40/100 to Franklin F. Stetson of Los Angeles, California. These are the same parties to whom the other two above-named patents were issued and they are the parties plaintiff to this action.

The patent double seamer machine is adapted to receive cans and can tops simultaneously from the can top feeding device, and consists of a two turret machine with revoluble transfer means between. The first seaming operation is performed on the first turret and the rolling of the seam is accomplished on the second carriage. It is a continuously operating machine where several cans are operated on simultaneously, the first seaming operation being performed by encircling the can top with a seam forming means and the second operation by rolling the seam against rollers.

Originally the complaint included also a patent for a tool for capping and double seaming cans, No. 1,124,553 which was subsequently withdrawn.

The defendants introduced said patent in evidence as their Exhibit V on April 4, 1923.

The Parties. It appears from the proofs that the plaintiffs, Ray O. Wilson, Arthur D. Sumner and F. F. Stetson, are [55] the owners of the patents which are alleged to be infringed.

The defendant Angelus Sanitary Can Machine Mfg. Co., is a corporation organized and existing under the laws of the State of California, and its codefendant Henry L. Guenther is its president and managing officer and is the inventor of patents which have been patented and which are claimed to infringe plaintiffs' devices, the defendant corporation being manufacturer thereof.

Defendant's Patents. The Guenther can feeding and timing device application was filed July 25, 1922, patent issued July 31, 1923, No. 1,463,527. His can cap feed application was filed December 21, 1921, and patent was issued May 8, 1923, No, 1,454,-383. His can double seaming machine application was filed December 21, 1921, and patent issued January 2, 1923, No. 1,441,195. The first operation seaming head thereof has a separate patent issued therefor 1,450,418 issued April 3, 1923, and also the second operation seaming head thereof in patent 1,440,143 issued December 26, 1922.

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Conjoint Use of Plaintiff's Patented Mechanisms. The three patent devices may be used as parts of one machine and are particularly adapted to pass cans and can tops on a line and in continuous motion from the time of their entry on to the can feeding device until discharged from the double seamer with the cans tightly sealed. The machine may be used either to put bottoms onto the can bodies or to seal the tops onto the cans filled with products of various kinds, such as apricots, beans, corn, fish, peaches, peas, tomatoes, spinach and other things suitable for canning.

The evidence shows that the inventions of said letters patent and the devices covered thereby are intended for conjoint use with each of the other of said inventions and with both of the others, and have been so used.

Similar devices have been conjointly used by the defendants. To some extent they have been so used in infringement of the third patent, as is herein elsewhere discussed.

In commenting on the visit of December 22, 1922, (T. 114) [56] to the Pacific Closing Machine Co. plant where plaintiffs' commercial structures are manufactured, the Master on January 4, 1923, describes his observations using notes made the day following the visit (T. 120–124, 135).

The commercial device manufactured under the three patents, known as the Pacific Machine, was explained by Mr. Webber, an employee of Pacific Closing Machine Company. It consists of three disks and two turrets with transfer means between the turrets. The first disk is not a part of the patents. It is a revoluble disk with a center rubber wheel, the circumference of which is cut into four segments. This is a timing device for carrying cans onto the second disk. The second disk is the one of the first patent, the feeding disk. The feeding disk revolves at the same rate of speed as the first disk, and at the center of the feeding disk is a star wheel with four arms. The star wheel is located in the same place as the rubber wheel of patent one. The star wheel has a double function: First, if a can is fed too fast onto the feeding disk the outside curve on the rear of one of the arms retards the movement of the car forward; and second, if one of the cans comes in front of the tip of the star wheel it will accelerate its motion so as to have it come up in front of the timing device coming up through the slots in the floor of the disk. The timing device moves the can forward to the third disk, and there the can passes under a top feeding device. As it passes in the passageway it moves a finger which releases a cam wheel attached to a rod to operate a mechanism to allow a can top or cap to fall from the bottom of a stack, over the can. The can top proceeds above the can until the can is raised onto the chuck of the seaming machine proper in one of the turrets. At that point the top is down on the can and an encircling device begins to seam the can top flange with the can cap corresponding flange. In this first turret the can revolves on its vertical axis one and one fourth times while the turret makes a partial revolution and it then is passed by a revoluble transfer means over a [57] transfer platform to a second turret where the chuck is revolved turning the can several times so that the seam is pressed against rollers while the turret also revolves carrying the can a part of the revolution to its point of discharge.

This second operation in plaintiff's patent contemplates a spinning of the can against rollers operating circumferentially to roll down the seam. This is the usual and ordinary way of all can closing machines of spinning the can rapidly, whilst rollers are pressed in to roll down and complete the seam on the second operation.

The mechanism considered as a whole and its general mode of operation, is, first, the can feeding disk with a track of parallel strips or rails and positive can engaging members which carry the can to a second disk or wheel with spaced apertures to receive same and pass it under the can top feeding device. It then goes to the first turret, where the first seaming operation is performed, and from there is passed to the second turret where the ironing of the seam is performed and it is then discharged.

On May 2, 1923, the Master visited the American Can Co. plant and commented on what he saw there, on the following day (T. 1764).

The party was shown through the plant and witnessed various operations in the seaming of cans and examined some of the can capping machines in storage and not operating, illustrative of the continuous operating machines, which have two rollers in the seaming head, one to form the initial seam and the other to compress same and make the double seam. These were one turret machines and the can did not pass from one chuck to another nor from one platform to another, but remained on the same platform with the seaming rollers, performing successive operations. The party then proceeded to the shop of the Angelus Sanitary Can Machine Co., except Mr. Wilson, and there again observed the operations of the commercial seamer mechanism. [58]

(The above description of the Master's visit to the American Can Co. plant is taken, as above indicated, from the transcript, page 1764. Objection No. 18 of defendants' objections speaks of this portion of the Draft Report and that immediately following below as being a prejudiced and biased statement on the part of the Master. No objection whatever was offered at the time the statement was made on the record. The objection is without foundation.)

On the morning of June 2, 1923, the Master and party visited the plant of the Los Angeles Can Co., with which plaintiff Stetson is connected, and then went across the street to the Pacific Closing Machine Co. plant. In the afternoon of the same day he made a statement on the record of what he had observed (T. 3130–3147). At the Los Angeles Can Co. plant he examined the commercial machine under the plaintiffs' patent which had on the type of cap feed which had the finger on the disk which carries the cans and three blades which are operated

to allow a cap to fall onto the rails over the cap. The mechanism had a floor under the cap feed which raised gradually so as to bring the can a trifle above the floor of the chuck onto which it was delivered in the seaming machine. The whole floor was raised. There was not any rib or raised portion up off of the floor, the floor itself raised in that particular device. The can itself was held by the pockets perfectly vertical so that there was no tip at any time in going up this raised pathway. The finger on the disk engaged the can top immediately under the pile, that is, the can top had not passed forward in any respect but was engaged and moved forward by the finger on the disk. In revolving the first turret a mark was placed on the seaming ring and just beneath it another mark on the can itself. The can and the seaming ring where marked in the course of turning ceased to be coincident. The ring may be said to encircle the can top, in that the impingement thereof does proceed around the can cap and can top. The ring also physically encircles or surrounds the can cap and top, centering same. Defendants' counsel admits (T. 3154 11. 8-10) that the [59] ring encircles the can top not only physically but in operation in movement.

The party also observed a second machine which is in the line for commercial operation in putting bottoms on cans. The machine was speeded up and the Master's timing was 232 cans per minute with hardly any vibration. The machine was operated for a short time and then stopped and later started again. This was partly due to the fact that there was not a sufficient supply of cans in the can feed chute to allow continuous operation in that high speed. Various tests were made of cans where the bottoms had been put on by plaintiffs' machine. The Master picked up other cans at random and had them tested. Some of them had only the first seaming operation completed when tested. With the first seaming operation only the can does not stand any pressure except perhaps four or five Two of the cans which had been so tested pounds. for the first roll were put back into the seaming machine and the second seaming operation was performed and on a test the indicator showed a pressure of twenty-five to thirty pounds. On the $2\frac{1}{2}$ pound cans the pressure ran up to thirty and on the gallon cans the indicator went up to $271/_2$ pounds. The same can was then taken back and the top was put on it. The top was then pierced and the can again tested on the bottom seam which showed 28 pounds pressure at that time. The air pressure was let in to the full extent. The internal air pressure test showed no leakage of air by bubbles from the cans visible in the test. The gallon can after the first operation did not hold any pressure at all. The fact that these cans do not hold air pressure when seamed with the first operation does not affect their ability to withstand pressure after the entire operation is completed.

At the Pacific Closing Machine Co. plant a new machine not yet fully completed was exhibited where the present commercial can feed was installed

without the star wheel on the second or feeding disk corresponding to the first disk in the first patent. The star wheel in the commercial machine is [60] located in the same place as the rubber wheel 22 of the patent and is exhibited in photograph in Exhibit X as marked D and there was no rubber wheel. Without the star wheel on the first disk A of the photograph Exhibit X the cans were timed by the wheel B so as to come onto the second disk C in advance of the radial ribs E. Later the star wheel was put in place and the tips of the star wheel extended into the path of travel of the cans about the same as the part 31 on the radial rib would extend if constructed according to the patent drawings, part 31 being inside and a relatively higher part. The cans came from the disk A onto the disk C and were retarded so as to revolve backward in their forward progress, a counter-clockwise direction. The star wheel advanced the cans until the radial ribs E came up through the slot in the disk C and the y by reason of the can's eccentric course of travel the can was thereafter advanced solely by the ribs E until it was picked up by the pocket in disk G for passage under the can top rack. None of the cans were observed by the Master to come on top of the blades. The whole matter was apparently regulated by the adjustment of the disk A so that the timing center wheel of the disk A with the rubber pads B would time the cans to go onto the disk C always in front. If there was a failure of adjustment of A then the cans would naturally come onto disk C in different positions.

The Master endeavored to notice particularly whether any of the cans on disk C would come directly over any uprising blades E but did not see any. The disk C is overlapped by the disk A but is adapted to receive cans near its center unless they come into contact with the tips of the star wheel.

In the cap feed mechanism there was a raised portion so as to lift the cans above the floor, similar to rail 74, patent No. 3. This raised portion likewise raised the cans so as to come slightly above the floor of the chuck to which it was delivered. This raised portion was broad enough so that a can could ascend on it easily. It did not seem to make any difference whether the rail was the whole width or [61] just a portion. Parts of the machine apart from it were examined, as for instance, the plate which contains the guide rail of the cap feed.

There was also examined a model of the can feed device with its arcuate rails to lead the cans into the center of the disk where it was contracted by a rubber wheel and retarded in its forward movement by the wheel acting in conjunction with the outer rail. Several cans were filled with water and run onto the first device, there being some spill. Whether this was due to the wooden chute which leads the cans onto this disk or to their striking the radial ribs was not clear. It seemed due to the unevenness with which they were delivered to the

disk rather than any interference with the ribs. There was probably 1/8 of an inch step from the wooden chute onto the disk. Quite different from the level smooth delivery off of Disk A of exhibit photograph X onto the disk C. The wooden chute was apparently a makeshift proposition for the purpose of guiding the cans onto the disk. In the model the blades, corresponding to the blades 30 of patent 1, were beveled at the ends rather than having straight abutment and square edges seeming to appear in the patent drawing. That, however, even if true, would only be a variation of form not of great importance, there being no change in principle and the specifications not giving the exact shape. The modification is something that a mechanic should do if he found the edges too sharp or too straight and, in my opinion, he could modify it without departing from the spirit of the patent.

In the present commercial machines the cap is supported on the inner edge of the can receiving depressions in the periphery of the disk and on the outer edge on the fixed rail, instead of using two rails.

It has been conceded by the plaintiff that in his commercial machine he no longer uses two spaced rails in the form [62] in which they appear in his patent No. 2. Operating the model, cans, some of which were filled with water, were run through same and clear through the entire machine so as to be fully sealed showing that the model was an operative device, and the model acted conjointly with the rest of the machine.

The Master also inspected the defendant's machines or devices a third time on September 5, 1923, just before the close of the case, and spent considerable time in watching it operate and noting the various details thereof.

Like the plaintiffs' machine, all three devices, can feed, cap feed and double seamer,—were used conjointly in continuous operation, carrying smoothly a stream of cans from the can feed to the discharge in the double seamer.

Joint Invention. The special defenses raised by the answer that the inventions are the sole inventions of Ray O. Wilson are not sustained by the evidence but the evidence shows that they were the joint inventions of Ray O. Wilson and Arthur D. Sumner.

I find that the complaint states a joint cause of action.

Invention Shown. As to the defenses that the three letters patent in suit do not possess the quality of invention such contentions are contrary to the evidence. Each of these three letters patent possesses the quality of invention in varied degrees.

The can feeding patent is a short step in advance in a crowded art. It combines a revoluble disk with positive can engaging means and a chute across the face of the disk. No one of the prior art citations contains this combination.

The cap feed is also an advance in a crowded art, perhaps not of equal merit with the can feed patent but entitled to consideration as an improvement. The combination of claim 1 is not contained in any one patent of the prior art, nor even suggested. Nevertheless it is a patent of narrow scope.

The double seaming machine, however, notwithstanding the art is crowded, is a distinct step in advance and an invention [63] of merit, and the patent is to be liberally construed.

Defendant has developed three similar devices which appear with the plaintiffs' devices in classifications by themselves in consideration of the prior art. By reason, however, of certain novel structural differences and differences in modes of operation in certain respects defendants have avoided infringement of potents 1 and 2, the can feed and cap feed patents.

With respect to the patent 3, the can seaming mechanism, while there are some detail differences as to the mode of operation and mechanical construction of certain parts considered by themselves, such as the seaming head shown in Exhibit "P" and the plaintiffs' curling ring used on the first turret, nevertheless as far as the question of infringement is concerned the general construction and mode of operation of these parts is the same as will hereinafter be described, and the essence of plaintiffs' invention and the general construction and mode of operation of the combinations covered by claims 2 and 4 of this patent the defendants have adopted, and have thereby become guilty of infringement.

The evidence shows the defendants Guenther and

his company defendant to be jointly and severally liable for the infringements found herein.

Novelty. As to the defenses that the patents are void, for want of novelty because of prior publication, these defenses are not sustained by the evidence but are contrary to the evidence. Each of the patents contains distinct novelty.

Utility. Each of the patents in suit possesses utility, both singly and in conjoint use, and each has actually been incorporated in structures commercially used.

Validity. I find each of the patents sued on is valid.

Notice of Patents. I find that the defendants were notified of the three patents in suit November 5, 1921 (T. 1004) [64] and had knowledge of Patent 3 in 1918, long before any infringement took place.

Each patent with its prior art will be considered separately below.

I.

THE CAN FEED PATENT.

Both the plaintiffs' can feed device and the Guenther can feeding and timing device belong to a distinct type where a disk is used in conjunction with positive can engaging members and a can chute consisting of guide rails passing over the surface of the disk.

Plaintiffs' patent can feed device consists of a horizontal revoluble disk with slots therein through which positive can engaging members raise and engage the cans and carry them through guide rails with an arcuate path of travel around the center of the disk and from there off eccentrically to another can receiving member. In the center of the disk is a relatively small rubber wheel which acts in conjunction with the guide rails in retarding the cans to prevent jamming.

Plaintiffs' expert well classifies the prior art with relation to the means for moving the cans forward and testifies that one class uses a revoluble disk which has frictional engagement on the bottom of the cans to carry them forward on a certain line of travel through spaced rails; while another class uses positive engaging means such as star wheels, revolving arms, oscillating arms, moving belts and spiders of various sorts. None of the prior devices have in combination a disk and positive engaging means revolving therewith giving thereby in combination with the spaced rails and the retarding means a smoother progress.

In referring to the patents hereafter we will refer to the first and second bound volumes of patents giving the number of the patent, Volume I for Exhibit "Q-1" and Volume II for Exhibit "R-1." [65]

P. W. Fleischer, No. 1,212,754, Jan. 16, 1917, Vol. II, No. 27, has no revoluble disk but has a spider acting as a positive pusher to advance cans at an accelerating speed between a guide rail and the edge of a plate. No spacing means are shown in the patent. *Polk,* No. 742,488, Oct. 27, 1903, Vol. II, No. 37, has a belt conveyor operating with a rotating disk and guide rails but has no positive can engaging members. It has no means on the disk for spacing the cans.

Levy, No. 1,159,848, Nov. 9, 1918, Vol. I, No. 36, shows the combination of a revolving can carrying disk, the cans being propelled by a pusher and engaging a diagonal guide to produce the effect of discharging cans at the peripheral speed of the disk. It does not have the guide rails, nor spacing means. The cans have no movement relative to the disk until deflected by arms shoving them off to a discharge chute.

Levey, No. 1,160,084, Nov. 9, 1915, Vol. I, No. 37, in a bottle capping machine has a revoluble disk carrying the bottles by disk friction through guide rails onto a second disk where they are picked up by a star wheel. It does not contain positive bottle engaging means operating with the disk, nor bottle spacing members associated with the disk.

Johnson, No. 1,106,222, Aug. 4, 1914, Vol. II, No. 44, is a disk friction mechanism containing a rotary disk with guide rails but no positive can engaging members, and no means to bring the can toward the center, nor spacing means.

Adviance and Calleson, No. 1,096,521, May 12, 1914, Vol. II, No. 45, is likewise a disk friction mechanism containing a rotary disk with guide rails, but no can engaging members, nor means to deflect cans toward the center, nor can spacing means on the disk. Kruse, No. 1,152,188, Aug. 31, 1915, Vol. I, No. 33, has a rotary disk with the guide rails, the cans being carried by disk friction. This disk is not adapted to receive cans near its center nor are there any positive can engaging [66] elements, nor any spacing means for spacing them as advanced.

These are the references cited in the patent office. Other references are as follows:

Smallwood, No. 523,013, July 17, 1894, Vol. II, No. 20, for a bottle filling machine contains a positive pusher and probably an accelerating movement of the bottle but does not resemble plaintiffs' device in mechanism or mode of operation. It has no rotary disk adapted to receive bottles near its center.

Woodland, No. 1,133,602, March 30, 1915, Vol. II, No. 21, contains a feed conveyor carrying a series of containers to a disk and prior to a time these containers are delivered onto the disk they are spaced relative to each other and in synchronism with receiving pockets on the disk. The initial conveyor is an endless belt. It has no rotary disk adapted to receive cans near its center but has a positive engaging means and guide rails at the place of discharge.

Austin, No. 532,518, Jan. 15, 1895, Vol. II, No. 22. This consists of a rotary table with can pockets on top, cans are guided to the table by guide rails. It has no continuously revoluble conveyor shown to which cans are delivered when discharged from the table. The table is not adapted to receive cans near its center and there are no means for separating the cans relative to each other.

Haight, No. 1,029,681, June 18, 1912, Vol. II, No. 23. This patent shows a belt conveyor to deliver cans to star wheel feed. It does not have a rotating disk adapted to receive cans near its center, nor has it any deflecting means. The spacing means are on the endless belt.

Miller, No. 1,106,884, Aug. 11, 1914, Vol. II, No. 24. Figure 1 shows the plan view of a bottle-feeding machine. The bottle carrier conveys the bottles to an intermittently movable carrier. The rotary disk 66 receives the bottles from the filling table. It has guide rails 80 and 90. Frictional engagement with the disk moves the bottles. The retarding means is an arm at the entrance of the bottle-receiving mechanism. It has no continuously movable conveyor of equal speed with the disk. [67]

Woodland, No. 1,197,569, Sept. 5, 1916, Vol II, No. 25. This is also a bottle-feeding mechanism. Figure 2 is similar to Woodland above mentioned, Vol. II, No. 21. It has a rotary table 12 with bottle-receiving members 14. The table is not adapted to receive bottles near its center. There are spaced rails 29 and 30 at the end of the path of travel for deflecting the bottles outwardly.

Woodland, No. 1,203,676, Nov, 7, 1916, Vol. II, No. 26, is another bottle-feeding mechanism similar to Woodland just described. It has a rotary table 12 with bottle-receiving members 14. Bottles are fed to it by an endless belt conveyor and arm 42. Bottles are discharged between guide rails on to a friction disk to a discharge conveyor. The retarding means are element 60 an arm projecting into the path of travel at that part of the guide way where the bottle enters therein.

Jensen, No. 443,445, Dec. 23, 1890, Vol. II, No. 4. The feeding mechanism of this seaming machine patent has a disk carrying cans forward by frictional engagement but the disk is not adapted to receive cans near its center, nor does it deliver same directly to a rotating receiving disk.

The patents above mentioned while not all discussed are sufficient to illustrate the various types of machines shown in the prior art.

One feature of novelty (a part of the novelty of the combination itself) in the various combinations of a number of claims is the plurality of can engaging members operated by a cam causing said members to advance and recede and on advancement to come into engagement with the cans and forward them to the succeeding can-receiving mechanism.

The prior art shows no mechanism which has, as described in claim 1, can engaging members operating through slots in a disk; nor, as described in claims 2 and 3, members recipro*act*ing through the rotary member to engage behind the can; nor, as described in claims 4 and 5, vertically moving can engaging members carried by the disk with means operating on [68] the rotation of the disk to raise and lower the can engaging members; nor, as described in claim 7, vertically movable radially extending members carried by the disk adapted to engage the cans with means for raising and lowering the can engaging members; nor, as described in claim 8 radial ribs associated with a rotating support and movable therewith; nor, as described in claim 10, means movable to points above and below the surface of the disk for engaging the rear sides of the cans when on the outer part of the disk.

Another feature of novelty in this can feeding patent is the retarding means,—a rubber wheel of relatively small diameter to that of the disk, in the center of which disk said wheel is placed, the rubber wheel operating in combination with the outer curved rail to retard the cans until they are positively engaged by the can-engaging member and also assisting the inner raised portion of the engaging member to operate to space the cans in their progress.

These retarding means appear in claim 2 as "a rubber wheel upon the shaft and having its periphery extending into the can chute"; in claim 3, "a can chute leading over the face of the disk and part way round the shaft, a rubber wheel mounted upon the shaft and extending into the chute"; in claims 4 "means for guiding the cans across said disk and means for regulating feed of the cans to the can engaging members"; in claim 5 "means for yielding the cans across said disk, and means for regulating the feed of the cans to the can engaging members, comprising a friction roller mounted to rotate with said disk positioned to engage the cans before the latter are engaged by the advancing members and press the cans against the outer side of the guide means"; in claim 6 "a horizontal guide chute extending across one of the feed disks, a friction roller concentric to the last-mentioned disk mounted to rotate therewith, co-operating with the guide chute to engage the cans in the latter and limit the speed of their advance"; claim 7 uses the same language as claim 6, except the friction roller is described [69] as "mounted to rotate in unison therewith" (the disk); claim 8, "stationary guides disposed eccentrically relative to axis of rotation of said support for moving articles radially and for retarding the forward movement thereof for placing the articles in contact with the radial ribs'; claim 9, "a rotating disk of relatively large diameter and adapted to receive cans near its center."

Claims found valid. Claims 1 and 10 are found valid because containing the first above described element of novelty with respect to the can engaging members, and because the combinations themselves are novel.

Claim 6 is found valid. It contains the novel retarding means and the combinations are novel. Claims 2, 3, 4, 5, 7, 8 and 9 are found valid. They contain both elements of novelty, the positive engaging means and retarding means, and the combinations are novel.

Other elements of novelty appear in the several claims, but need not be discussed as there are sufficient to sustain the novelty of the invention as claimed in the several combination claims of plaintiffs' patent.

Prior art structures show in various combinations:

(1) A disk revolving to carry the cans.

(2) A chute or curved rails across the supporting surface.

(3) Can engaging members to produce the forward movement of the cans.

(4) Retarding means to allow spacing members to separate the cans and permit the positive engaging members to come into operative position behind the cans.

None of the prior art structures have in combination a relatively large disk adapted to receive cans near its center, nor do any of them have a rubber wheel to retard the movement of the cans, nor do any combinations of the prior art include cam operated radial ribs, fingers or bars.

The essence of the inventions covered by the claims of plaintiffs' patent are the means for the gradual smooth movement [70] of the cans across the surface of the disk to be engaged without stop, jar or jerk by a second disk with means to carry the cans further.

These first-mentioned means for retarding the cans are, as stated above, the arcuate guide rails carrying the cans into position near the center of the disk where they come into engagement with the friction roller and are spaced by the tips of members rotating with the disk and are advanced 58 Angelus Sanitary Can Machine Co. et al.

by the radial ribs coming into engagement behind the cans.

As to Invention.—The granting of the claims by the Patent Office raises a presumption in favor of invention.

So also the proven utility and advantage of the cam operating fingers or radial ribs which advance and recede into and from the chute or arcuate rails which guide the cans across the face of the revolving disk, further strengthen the conclusion that the device is the result of invention.

The prior art shows disks carrying cans through arcuate rails and other devices with positively operated members carrying the cans through arcuate rails on tables. This presumption as to invention is not destroyed by the theory that it would require merely mechanical skill to combine the disk with the positive engaging members because in the plaintiffs' device we have new combinations containing other elements of novelty and as producing a new and useful result, the smooth and continuous flow of cans without spill of liquid contents.

By reason of the fact that the prior art is crowded, the invention is necessarily of narrow scope and in determining equivalents or nonequivalents of elements the scope of the patent must be borne in mind.

Non-Infringement.—The defendants' device stands in the same class as that of the plaintiffs' device, in that we have cam operated fingers for positively engaging and forwarding the can
through arcuate guide rails with a revolving disk to support them.

Defendants' machines and each thereof contains or contain [71] can feed mechanism comprising a revoluble member over which cans are passed in substantial proximity to the center thereof and discharged from the periphery thereof where they are received by can engaging elements of a rotating member which picks up the cans at the speed of delivery, together with means rotatable in conjunction with the disk, and mechanically operated, for positively moving the cans while they are supported upon the revoluble member and while said latter member is moved, and for causing the cans to so move in spaced relation and sequence.

The cans in both plaintiffs' and defendants' devices are given the same axial movement on retardation and held back for engagement by a subsequent mechanically operated member disposed in operation above the surface of the disk.

The can operated fingers of the defendants' device are above the surface of the disk and do not operate vertically, except incidentally, their movement being practically horizontal. These fingers do not come up through slots in the disk.

Claim 1 is not infringed because it does not have "a series of radial slots formed therethrough" (the disk), nor do the can engaging members operate through slots, nor do they have vertically extending inner portions, nor is any part thereof below the surface of the rotatable disk. Claim 2 is not infringed because the defendants' device has no "rubber wheel upon the shaft and having its periphery extending into the can chute," nor does it have members "reciprocating through the rotary member to engage behind a separated can."

Claim 3 is not infringed for the same reasons. It has no "rubber wheel mounted upon the shaft and extending into the chute" nor does it have "members reciprocating through the rotary disk to engage behind the separated cans.

Claim 4 is not infringed because defendants' device has no "vertical moveable can engaging members carried by said disk" nor "means operating on the rotation of said disk to raise and lower said can engaging members." [72]

Defendants' can engaging members are not carried by the disk but are carried on the shaft which rotates the disk.

Claim 5 is not infringed because there is lacking in defendants' device the "vertically moveable can engaging members carried by said disk," and "means operating on the rotation of said disk to raise and lower said can engaging members," nor is there in defendants' device the "friction roller mounted to rotate with said disk."

Claim 6 is not infringed because it does not contain "a friction roller concentric with the last-mentioned disk (the disk delivering cans to the can top feeder) mounted to rotate in unison therewith." The defendants' device has yieldable cushioning means the can engaging fingers (with springs), which co-operate with the guide chute to engage cans in the latter and regulate the speed of their advance. Moreover, the element of Claim 6 "means for rotation said disk at corresponding peripheral speed" is not in defendants' device which has two disks operating at different rates of speed.

Claim 7 is not infringed because the defendants' structure lacks the following elements of claim 7, to wit: "means for rotating said disks at corresponding peripheral speeds," and "a friction roller concentric with the last-mentioned disk mounted to rotate in unison therewith"; nor does it have "a plurality of vertically moveable radially extending members carried by said last-named disk adapted to engage the cans before they are released by the friction member," nor "means for raising and lowering the can engaging means."

Claim 8 is not infringed because defendants' device does not contain the element described in the claim as follows: "stationary guides disposed eccentrically relative to axis of rotation of the support for moving the articles radially." The guide rails direct the cans into the pockets of the next disk. The guide rails also in conjunction with the engaging fingers of defendants' device may retard the forward movement of the cans but do not do so by moving them toward the center of the disk, nor does the retardation place "the articles in contact with radial ribs." [73]

Claim 9 is not infringed because it does not include the element "a rotating disk of relatively large diameter and adapted to receive cans near its

center." The size of defendants' disk is unimportant except that it must be large enough to receive cans thereon. Defendants' disk is not adapted to receive cans near its center in the sense that that language is used in the claim. The fingers in defendants' device prevent the cans coming near the center for the purpose of retardation of their movement. The path of the travel of the cans in defendants' device is not toward the center where they become engaged by the radial ribs nor from there are the cans accelerated by being deflected away from the center out to the periphery of the disk but this is done by the accelerating movement of the fingers.

In defendants' can feed mechanism the outer rail is differently positioned with cans of different diameters. The position or path of the outer rail has no function different when used with smaller than when used with larger cans. In other words, the fact that the smaller cans come in further from the edge of the disk brings them no closer to the center thereof, but they are just as far from the center as the larger cans are.

Claim 10 is not infringed because it does not have "means moveable to points above and below the surface of the disk for engaging the rear sides of the cans * *."

Defendants' structure so departs from the invention covered by the claims of plaintiffs' patent that it is not the same in detail nor substance. It is true that both parties' devices may be properly placed in the same classification—a new classifica-

tion-different from the classes existing in the prior art, in that they show the combination with a rotary disk of mechanically operated means moveably mounted to be brought into position to space the cans. An essential feature of plaintiffs' invention is the synchronous movement of the can engaging members with the disk thereby permitting the can engaging members to rise through slots in the disk to engage the cans. But in defendants' device the can engaging [74] members have a separate gear from that rotating the disk and these members move at a greater speed than the disk. Moreover, they have an accelerating tendency due to the lateral movement of the arms as the cans progress. It is true that these arms rise and fall but this is not an operative feature and is merely incidental to the lateral movement of the arms and fingers of defendants' structure.

The change in plaintiffs' commercial device, whereby the rubber wheel is replaced by a star wheel and an independent timing device has been adopted, consisting of a four-segment rubber wheel on a separate feeding disk, is significant in connection with consideration of the question of equivalents of the resilient feature of defendants' can engaging fingers.

These changes are persuasive that the details of defendants' structure for retardation and spacing of cans has not been pirated by defendants, that the defendants' means are not the mechanical equivalent of plaintiffs' means. The mode of operation of plaintiffs' new commercial parts and the mode of operation of the defendants' retarding means both differ from the patent.

The defendants' can engaging fingers are wedge shaped to push in between two cans, carrying forward the front can and pushing the one in the rear, if too close, against the other rail, causing it to turn clockwise. The results are the same as provided for in the patent, but are not obtained in the same way.

II.

THE CAP FEED PATENT.

Novelty. The second patent is for a device which receives cans from the can feeding device above described and delivers same with the can top thereover to the double seaming machine. This cap feed device as claimed in the combination of claim 1 is novel in that old elements are brought together into a new combination to co-operate to carry the can and can top in continuous motion without stop, jerk or jar and to deliver same together simultaneously to the double seamer machine. [75]

Claim 1 is the only claim alleged to be infringed. It includes: (1) a revoluble disk, (2) a pair of curved rails arranged above same on each side thereof, (3) a can top rack, (4) means controlled by the can to cause the bottom cap to drop, and (5) a finger on the disk for engaging and conveying the cap along the rails.

None of these elements of themselves are new but the combination of the Wilson and Sumner patent, containing the rotary can-carrier with a member thereon to engage and advance the can tops and convey them on the rails directly above the can carried by the disk, is new, and not to be found in any of the citations of prior art. Defendants' device comes within this classification.

As distinct from the classification aove given of the Wilson and Sumner patent, the prior art shows several patents where the caps are moved or fed by a pusher member onto the can top. In this classification appear Forry, Gray and Wegner.

Forry, No. 688,622, Dec. 10, 1901, Vol. II, No. 51, has straight rails. The can top is carried to the top of the can and sealed immediately.

Gray, No. 944,456, June 6, 1911, Vol. II, No. 18, has no disk and no curved rails but a slotted plate.

Wegner, No. 964,721, July 19, 1910, Vol. II, No. 19, merely shows a feeding mechanism. It has no disk and no curved rails but extensions of stops, one shorter than the other and the caps are moved between them. It has no can-controlled feed.

The third classification is one where the caps are pushed into position over the can and carried beneath the rail as in Guenther, No. 1,049,227, Dec. 31,1912, Vol. II, No. 29. It has no can-controlled means of cap feed and no finger on the disk.

Livingston, No. 690,593, Jan. 7, 1902, Vol. II, No. 52, has no curved rails.

The fourth classification is one where the caps are delivered to position over a can which caps are supported in [76] part on a stationary rail and part on a carrier which advances the can. Of this class are Johnson, Kruse and Palmer, the latter with a downardly projecting finger.

Johnson, No. 1,040,951, Oct. 8, 1912, Vol. I, No. 28, a part of this mechanism is also shown in Johnson, No. 1,074,325, Sept. 10, 1913, Vol. II, No. 15. There is no finger on the disk but a recess in the can-receiving depressions on the periphery of the disk carries the cap feed after it has come up against the shoulder of the recess.

Kruse, No. 1,152,188, Aug. 31, 1915, Vol. II, No. 35, does not have a pair of curved rails but an outer rail and inner ledge similar to Johnson. The can top is advanced by the shoulder on the disk but said shoulder does not engage the can top to move it into the chute.

Palmer, No. 947,685, Jan. 25, 1910, is not in the bound volume. It has no can-controlled feed means and no finger on the disk carrying the can. The can top is guided but not supported by spaced curved rails. There is a finger that extends down from the arms. A wooden model of this is in evidence as defendants' "L-3."

Another patent introduced in evidence is Austin, No. 532,518, Vol. II, No. 22, of which there is a wooden model, defendants' "M-3." In this patent the chuck is raised by a cam so that the edge of the can pushes up a finger which engages a cap and carries it on curved rails over the can which is advanced by a star wheel and supported by a chuck.

The Krummel patent, No. 1,091,468, Mar. 24, 1914, Vol. II. No. 53, of which there is a wooden model, X-1, has a gravity feed of caps and there are no means controlled by the can for delivering the can top to the rails. The plaintiffs' patent is a narrow one with a narrow range of equivalents.

Non-infringement. Defendants' machines and each thereof contains or contain a rotary member for receiving and moving cans while receiving caps, cap feed means for supplying caps to the cans and controlled by the cans as fed, curved rails [77] above the plane of the top of the rotary member and respectively inwardly and outwardly of the periphery thereof, and means on a rotary member for engaging a released top or cap and delivering the same upon said rails above the can top.

In defendants' mechanism the stack of can tops is not arranged as in plaintiffs' patent, directly above the path of travel of the cans or of the curved rails but is a trifle to one side so that the finger to advance the cap cannot operate to engage and carry on the cap until a pusher bar has first advanced said cap.

The claim in suit describes the finger on the disk "for engaging the delivered can top and * * " The fact that the pusher bar delivers the can top before it is engaged by the finger does not seem to be greatly material.

Exhibit "O" is the model of the defendants' cap feeding device claimed to infringe.

Whether or not this claim is infringed depends upon the construction given to the term "disk." The word "disk" is used a number of times in the claim and inasmuch as the patent is one of a narrow scope the word will be taken to mean a circular device with spaced apertures which will move the

can at the same rate of speed throughout its course of travel.

The finger for engaging the can top in plaintiffs' structure is placed on the disk and moves the can top in a horizontal plane, the can coming up an incline to contact its cap which gradually presses the contents down within the can.

In defendants' structure the can travels in a horizontal plane and the rails carrying the cap are slanted down to bring the cap down on to the can. This necessitates a finger-carrying device to raise and lower the finger engaging the caps to push them along down the incline of the rails.

In defendants' device there are several can-receiving members which accelerate their speed, and operative arms with fingers on them. Defendants' can carrying members are not the equivalent of plaintiffs' disk or wheel. The mechanical structure and mode of operation is different. This is true also of the cap moving finger on the arm which moves up and down and [78] accelerates the forward path of travel. For these reasons I find that claim 1 of patent 2 is not infringed.

III.

THE CAN HEADING MACHINE PATENT.

This is the main patent, Exhibit 3, and is for the double seaming machine. It consists of a continuously operative two turret double seaming machine adapted to receive, while in motion, cans and can tops simultaneously from the can top feeding device, seaming the cans and can tops together on the first turret on a partial revolution thereof, means for transferring the cans from the first to the second turret, while in motion, where the seam is rolled on a partial revolution thereof by means controlled by the rotation of said carriage and the can discharged, all without start and stop, jerk or jar, at high speed without spill.

Prior to the plaintiffs' invention there were intermittent devices with two stations and one turret or carriage, the seam on the first station being accomplished by rolling rollers around the can tops while the can was stationary and then after it was transferred to the second station the can was spun against the compression rollers. There were also *continuously* operative devices, such as the Master saw at the American Can Co. plant, where on a revolving single turret a seaming head with two sets of rollers did both operations on the one chuck.

No prior device appears, however, which used two turrets for performing the two operations, one on the first turret and the other on the second. There were two turret machines in the prior art which flanged the can on a first turret and placed a cap thereon while transferring same to a second turret and used a seaming head with two sets of rollers to perform the two operations of seaming and rolling while on the one chuck. [79]

The Patent Office on June 30, 1915, page 35, as numbered in pencil by me, of the file-wrapper, Exhibit 3, in rejecting original claim 1, stated:

"* * * there is no invention in mounting a tool for double seaming a can cap to a can body on a turret, as shown by Black and then feed-

ing the can body from that turret to a similar one upon which the compressing operation is performed by another tool."

In rejecting original claims 2–4 the reason given was, "Johnson shows means for feeding can bodies and caps simultaneously to the operating machine. In view of this, there is no invention in providing any type of seaming machine with can body and cap feeding means, as disclosed by Johnson."

Plaintiffs' invention consists, however, of more than merely mounting a tool for double seaming a can top to a can body on a turret and then feeding the can body from that turret to a similar one on which the compressing operation is performed by another tool, with means for feeding can bodies and caps simultaneously to the operating machine. Plaintiffs' invention not only mounts a tool for double seaming a can top to a can body on a turret, and feeds the can body from that turret to a similar one on which the compressing operation is performed, and provides for feeding can bodies and caps simultaneously to the operating machine, but it also provides for: The simultaneous delivery of cans and can tops to a first revoluble turret, while in motion, and there seaming the cans and can tops together on the first turret on a partial revolution thereof; then a transfer of the cans to a second turret while both turrets are in motion. and then on a partial revolution of the second turret rolling the seam by means controlled by the rotation of said carriage and discharging cans. The elements and parts are so arranged and devised that they have a synchronous continuous operation. The machine allows a steady flow of cans, particularly filled cans, without any stop or start, jerk or jar, and consequent spill, in a smooth flowing line, permitting a number of cans to be operated on simultaneously and practically doubling the speed of the old intermittent machines. The arrangement of gears, shafts and spindles is such that the can capping [80] machine delivers to the first turret at exactly the right instant a can which is received on the revolution of the turret by the can supporting means which vertically reciprocates to clamp the can and cap firmly for the seaming operation which is performed while same is being carried on a partial revolution of the turret so that the can may be carried off from the chuck of the first turret and delivered to the supporting means of the second turret while revolving and there spun against rollers on a partial revolution of the turret and discharged.

This is an invention of great merit which went into immediate commercial use and attained such success that the defendants with the prior art before them preferred to adopt plaintiffs' continuously operative two turret type of machine than to use the intermittent two station old types of machines or the old types of continuous operating one turret machines with the double acting seaming head.

Plaintiffs' commercial machine is an improvement over the prior art in that it makes a somewhat better seam with less tits. The improvement is not so much in the seam itself as in that there is less spill in operation with greater speed than in other commercial machines used for seaming filled cans.

Making less spill is a distinct advantage irrespective of the rate of speed of the machine. This is particularly true for the gallon cans which make less spill regardless of the rate of speed.

The prior art shows of the intermittent type of machines Brenzinger, Johnson and Kruse as typical, and of the continuous operating machines, Black, Nichols and Dugan.

Intermittent Machine Examples.

Brenzinger, No. 213,482, Feb. 27, 1906, Vol. II, No. 12, Vol. I, No. 23. This is an intermittent machine with two stations; one for each operation, and a moving belt for carrying a can from one station to another. It does not contain two revoluble carriages nor provide for coincident delivery of cans and caps to a first *revoluvle* carriage, [81] nor for transfer of cans from one revolving carrier to another revolving carriage. In fact it has no rotating carriage whatever.

Johnson, No. 1,040,951, Oct. 8, 1912, Vol. I, No. 28, is another type of intermittent machine. A part of this patent is also included in

Johnson, No. 1,074,325, Sept. 30, 1913, Vol. II, No. 15, which was cited by the Patent Office as a reference. The Johnson patent has two turrets, one for flanging, the other for seaming and rolling, but the Johnson patent is a one turret machine in so far as the curling and compressing rolling operations are concerned. It has no means for coincidentally delivering the can tops and cans to the can supporting means while the carriage is rotating. It has no seaming means on the first carriage but same is for a flanging operation. It shows a seaming head similar to defendants' 14–P head used in the intermittent machine, which is not claimed to infringe. The 14–P head seams the can flange and cap while the machine is stopped.

Kruse, No. 1,152,188, Aug. 31, 1915, Vol. I, No. 33, discloses a vertical two station machine, using two seaming mechanisms having intermittently rotatable feed means for successively carrying the can and cap from the first to the second seaming means.

Continuous Machine Examples.

Black, No. 858,785, July 2, 1907, Vol. II, No. 34, Vol. I, No. 25. The wooden model of Black is defendants' exhibit "W-1" and is a continuously operating mechanism with (1) a disk or turnet with four spindles with flanging mechanism thereon, (2) a transfer wheel consisting of a disk with four can receiving depressions in its periphery carrying the cans over a platform, (3) a second disk or turret with four spindles. While in the transfer wheel the can receives its top and is then delivered to the second turret. The curl of the seam is formed as shown in Figure 5 of the patent and the compression roller is shown in Figure 6. While the curler is [82] engaged the compression is disengaged, and vice versa. Both operations are performed on the same spindle while the turret is rotating.

This is one of the instances where the prior art shows two turrets with transfer means between. But this Black patent does not, and none of the prior art mechanisms, show two turrets; one for the first seaming operation and the other for the second seaming operation.

The continuity of plaintiffs' patent mechanism is due to the use of these two turrets for seaming, with cap and can delivery to a first turret and transfer means operating between the revolving turrets, all in synchronism by means of gears, shafts and spindles, attendant features and parts, devised and arranged for that purpose. In prior devices, the continuity of motion, where existing, was obtained by the use of a double head for seaming; one roll to curl the can flange and can top flange together, then disengaging that and using another roll, it operated to compress the curl. The two rollers were attached to the seaming head and operated successively on the can and can top as the turret turned.

This Black 1907 patent is of this double seaming head type in a continuous operation machine. It was seven years after the Black patent before Wilson and Sumner filed, on Aug. 10, 1914, their application for a two turret continuous motion double seaming machine, in response to the demand created by the enormous growth of the packing industry and, it would seem, in anticipation of urgent demands for speedy machines created by the war.

Nichols, No. 1,096,957, May 19, 1914, Vol. I, No. 30, Vol. II, No. 11, is made up of four turrets: (a) for

flanging; (b) for feeeding in and attaching caps; (c) for curling the cap and can together; and (d) for compressing the roll. The cans are fed into and passed down through chutes by gravity. The machine operates on a horizontal axis instead of vertical, plaintiffs' patent. [83]

Dugan, No. 848,296, Mar. 26, 1907 Vol. I, No. 24. This machine operated continuously, carrying the cans in planetary movement and causing them to spin continuously and to be successively and continuously acted upon by a first set of seaming rolls and then by a second set of seaming rolls, all of which rollers move with the can turret.

The six patents above discussed are the ones selected by defendants' expert as most nearly approximating the plaintiffs' patent.

As we have seen these six patents considered either jointly or separately do not contain the essence of plaintiffs' invention, or the construction, combination and inter-relation of the parts and features thereof.

In plaintiffs' patent there are eighteen combination claims that were allowed by the patent office. That of itself raises the presumption of novelty and invention for each of these eighteen claims, particularly in view of the fact that none of the references and none of the patents contained in the prior art contain the combinations of any of these eighteen claims.

Claims 1, 2, 3, 4, 5, 6, 7, 9, 12, 14 and 16 cover the mechanism performing both operations and contain all the elements in greater or the same detail and

aspects which we have above described as plaintiffs' invention.

Claims 8, 10, 11, 13, 15, 17 and 18 cover sub-combinations for performing the first operation.

These claims covering the first operation are more specific than the ones covering both operations in that they set out specific mechanical detail for forming the seam. Said mechanical details are also covered in a number of the claims which cover both operations.

This brings us to a consideration of the preferred form of seaming means for plaintiffs' first operation. [84]

Seaming Means for First Operation.

Brenzinger, No. 813,482, Feb. 27, 1906, Vol. II, No. 12, Vol. I, No. 23. On this intermittent machine rollers are rotated about the can to form the curl of the seam. The rollers are mounted on slides radially operated and with the slides the rollers are operated in a plane.

Black, No. 858.785, July 2, 1907, Vol. II, No. 34, Vol. I, No. 25, wooden model, Defendants' Exhibit "K-3." In this continuous operation machine with the double seaming head the rollers are rotated about the can which is held against the rotation around its own axis. The rollers are on rocking levers oscillating.

Guenther, No. 1,049,227, Dec. 31, 1912, Defendants' Exhibit "J-3," No. 6, particularly figures 7, 9 and 10. In this intermittent machine the means for performing the first seaming operation comprise a pair of curling rollers carried upon a sleeve adapted to be rotated around the central axis of the can where the latter is centered by a depending flange approximately circular, cut out at portions for the passage of the levers and grooved rollers. The rolls are automatically forced inwardly by a cone member to form the seam. The cone is mounted to slide up and down on the hub of the revoluble head and is provided with a ring having slidable blocks pivotally connected with the forked end of a bell crank lever having a fulcrum on the main frame and provided with a friction roller engaging a cam groove in a cam secured to a cam shaft. This seaming head is Exhibit "P."

These Brenzinger, Black and Guenther patents are all illustrations of rollers running around the can which does not rotate on its own axis.

Walsh, No. 492,076, Feb. 21, 1893, Vol. II, No. 31. This patent provides for an encircling head which is stationary. The tool on the inner side of the cap flange pushes the cap flange and can flange into depressions on the encircling head and revolves to form the seam. This may be classified as a stationary head with a groove within which the can is rotated, [85] the head physically encircling the can top.

The Guenther 1912 patent first seaming operation means also physically encircles the can top and the seaming rollers traverse an encircling path of travel around the can.

Wegner, No. 1,104,751, July 21, 1914, Vol II, No. 14. This patent is on a single turret type machine in which the cans with self-imposing can tops are

rolled against the stationary seam forming tool as they are being advanced with the turret. This tool consists of a large stationary convexly curved or circular seaming tool B preferably comprising a series or plurality of separately and independently adjustable seam forming segments, preferably six in number, and a series or plurality of separately and independently adjustable seam closing segments. It is described in the patent, page 1, beginning line 86. It shows a circle in the center around which the cams revolve so as to form the seam. This circle is not regular in shape but is irregular so as to operate as a cam to put a greater pressure on the can and cap in one place than when the can is in another location. There are no means surrounding the top of the can and cap acting to center them in alignment for the seaming operation.

This Wegner patent is the best illustration of a nonencircling seaming means. The seaming means does not take a circular course of travel around the can, nor does it physically encircle the can to center it or otherwise.

Plaintiffs' first seaming operation is accomplished by means of a curling ring encircling the can-top and end and adapted, when forced into a position eccentric to the can top and end, to crush or upset the can and top flanges.

This eccentricity of the ring and can with its imposed top is accomplished by pressure externally applied to the ring by means of a stationary cam, around which cam the curling ring rolls.

Plaintiff's curling ring with the can top and cap within, the ring being eccentric to the can top and cap and the area of contact encircling the can top with the rotation of can [86] and ring differs from Brenzinger, Black and Guenther types in that the can is not held stationary with respect to the seaming means during the seaming operation. It differs from the Walsh patent in that the seaming means is not held stationary. Within this the can is rotated. It differs from the Wegner patent in that the can is not spun against an external ring or roller. It also differs from the seaming and in Dugan, No. 848,296 (p. 45 above) where the cans are spun against rollers as in the second operation of many prior patents which is accomplished by spinning the can against rollers which are relatively fixed or stationary.

There is, therefore, distinctive novelty in this specific means of rolling the seam by means of a ring encircling the can-top and turning with the can. This turning of the can on its own axis is termed "spinning" in various and sundry claims.

All of the claims except 2 and 4 contain the novelty of this spinning of the can on the first operation, setting out in more or less detail various elements of this novel encircling means and operation.

Plaintiffs' operation, known as "spinning the can" on the first operation is distinguished from the usual method employed by defendants and others who maintain the can against rotation on the first seaming operation. The term "spinning" refers also to the deforming of the metal of the can and cap by the first seaming operation, both as to patent of plaintiffs' Exhibit 3 patent and defendants' infringing P-24 machine, within the meaning of Webster's International Dictionary, "to shape, as malleable sheet metal, into a hollow form, by bending or buckling it by pressing against it with a smooth hand tool or roller while the metal revolves, as in a lathe." All of these claims are therefore held valid on that ground, of the encircling means for spinning the can on the first operation.

The combinations themselves of these claims are novel. [87]

This specific element of novelty is thus described in the several claims.

Claim 1 provides for "a series of spindles thereon, (the continuously revoluble turret) disks on said spindles, means for rotating the spindles by the rotation of the revoluble member, means for clamping a can-top and can against each of the disks to cause the cans to rotate as they are advanced by the revoluble member, means encircling and forming a seam between the can top and can while it is being advanced a partial revolution of the revoluble member, * * "

Claim 2 does not describe the spinning of the can, nor specifically describe the encircling means except "for forming seams between the can tops and cans while they are advanced on a partial revolution of the carriage, * * " but is novel in other respects.

Claim 3 describes the mechanism which would cause the rotation of the spindles revolubly mounted on the turrets and specifies also "can-top encircling and engaging disks on said spindles, * * means on said disks for forming seams between the can tops and cans as they are advanced by a partial revolution of said last-named shaft, * * ''

Claim 4 describes the means for revolving the spindles for the seam *rolling* means but does not require the spinning of the seam *forming* means or of the can being seamed, nor does it describe the seaming means as "encircling," but is novel in other respects.

Claim 5 specifies "means for spinning the can when encircled by the seaming means, * * "

Claim 6 specified "means for spinning the can when encircled by the seaming means, * * "

Claim 7 specified "means on said last named carriage (the one to which can tops and cans are continuously delivered) for encircling the can tops and cans to form a double seam, means for spinning the can and can top co-operating with said last named means, whereby the double seam is formed while the can is being advanced, * * " [88]

Claim 8 is a specific claim setting out the shaft, disks, stationary gear, pinions, means encircling the can-top and the stationary cam for co-operating therewith.

Claim 9 sets out the same elements as claim 8 in combination with the means for rolling the seam on the second turret.

Claim 10 contains much the same detail as Claim 8, specifically setting out "a stationary gear concentric with the shaft engaging said pinions whereby the cans are spun on rotation of the shaft while advancing, and means on said pinions arranged to encircle the can-top to form a double seam between the can top and can body."

Claim 11, after describing some of the details of the first operation, also specifies "a stationary gear concentric with the shaft engaging said pinions whereby the cans are spun on rotation of the shaft while advancing, means on said pinions arranged to encircle the can top to form a double seam between the can top and can body, comprising diametrically slidable seaming rings, and a stationary cam arranged to shift said rings as the cans are advanced."

Claim 12 provides for spinning the cans on both operations containing as one of its elements the following: "means whereby the rotation of said shafts will rotate said spindles and thereby spin cans carried by the supporting disks." Said claim 12 does not describe the seaming means as encircling the can tops but simply describes it as a "means controlled by the spindles carried by one of the shafts for forming a double seam between can tops and can bodies."

Claim 13 provides among other things, for "means for rotating the clamping means while advancing to spin the can and can top, and means encircling the can top for forming a double seam while the can and top are spinning and advancing." This is a claim covering the first operation only.

Claim 14 also has among its elements the means above quoted in claim 13 and is a claim to cover both operations. [89]

Claim 15 specifies "means for rotating the can-top engaging disk to spin a can while advancing, and means encircling the can-top for forming a double seam while the can is spinning and advancing." This claim covers the first operation only.

Claim 16 contains the same language above quoted for claim 15, and is a combination covering both operations.

Claim 17 describes the same spinning means with more detail, setting out the spindle, pinion and gear used in the first operation.

Claim 18 in describing a single operation gives the mechanical details "to spin a can and can top" and specifies also "means carried by the can top engaging disk encircling the can top for forming a double seam between the can top and can body as the latter is spun while the shaft is rotated."

Claim 2.

Claim 2 of the patent reads as follows:

"In a can heading machine, a revoluble carriage, vertically reciprocal can supporting means on said carriage, means for coincidentally delivering can tops and cans to the can supporting means while the carriage is rotating, means encircling the can top for forming

seams between the can tops and cans while they are advancing on a partial revolution of the carriage, a second revoluble carriage, means for supporting cans on said second carriage, means for transferring the cans from the supporting means on the other carriage, and means controlled by the rotation of the second carriage for rolling the seam formed between the can tops and cans on the first carriage."

It will be observed that claim 2 does not contain the element of novelty of spinning the can when encircled by the seaming means, but it sets out more broadly than the other claims the general invention of plaintiffs and there is nothing in the prior art which even approximates the combination as set forth in Claim 2. Claim 2 is therefore held valid.

Claim 4.

Claim 4 reads as follows:

"In a can heading machine, a pair of parallel vertically extending shafts one of which is tubular, means for rotating said shafts continuously in corresponding directions, a third shaft extending through the tubular shaft adapted to be rotated in a reverse direction in relation to said tubular shaft, a gear mounted on the third shaft, a cross head on the tubular shaft, a series of spindles on said cross head, pinions on said spindles [90] meshing with the gear on the third shaft, can top engaging means on said spindles, seam rolling means carried by said cross head co-operating with the can top engaging means to roll the seams between the can tops and can bodies as they are spun by the rotation of said spindles during a partial revolution of the tubular shaft, means for supporting the cans to position the tops in operative relation to the seam rolling means, means on the other shaft for forming a seam between the can top and can body during a partial revolution of the shaft and while it is in motion, and means for transferring the cans from the seam forming means to the seam rolling means."

It appears that this claim in reciting the mechanism begins with a description of the shafts, gearing and spindles and in the course of such recitation deals first with the seam rolling means which is the second operation and then with the seaming means which is the first operation.

Infringement.

Range of Equivalents. It is not necessary to say whether the plaintiffs' invention is of a pioneer character sufficiently broad for the broadest possible doctrine of equivalents. Plaintiffs were the first inventors of a continuously operative two turret double seaming machine, with the seaming operation on the first turret and the rolling operation on the second, and with a simultaneous delivery of caps and cans together to the first turret, and transfer means to the second turret all while the machine is in uninterrupted rapid motion. They are, therefore, entitled to a reasonably broad interpretation and application of equivalents.

Claim 2 is infringed and reads directly upon the defendants' structure. Both carriages are revoluble, the can supporting means on the first carriage is vertically reciprocal, it has means for coincidently delivering can tops and cans to the can supporting means while the carriage is rotating, its seaming head encircling the can top for forming seams between the can tops and cans while they are advancing on a partial revolution of the carriage

It has means for transferring the cans from one carriage to another and means controlled by the rotation of the second carriage for rolling the seam.

The simultaneous feeding of caps and filled cans to the first turret of patent of Exhibit 3 and in defendants' machine, [91] excludes dirt, grease and the like from the cans, which substance would obviously invade the cans on machines of the Black and Johnson patent types where the caps are not fed to the cans on the first turret.

The only element where any differentiation is claimed is "means encircling the can top for forming seams between the can tops and cans while they are advanced on a partial revolution of the carriage."

This same element is described in claim 4 of dedendant Guenther's patent, No. 1,441,195, Jan. 2, 1923, as follows:

"* * can-seaming means encircling said upper ends of the cans for partially forming a double seam between the can and its cap, while the can is carried by the turret in a stationary condition to the transferring means, * * " Claim 2 is not confined to means in which the can spins, nor where it is stationary, as in defendant's device, but is broad enough to include encircling means to be operated while the turret is in motion both when the can is relatively stationary and when it spins.

The centering function of plaintiffs' curling ring is also contained in defendants' first seaming means as is evidenced by the following language of claim 4 of Guenther patent No. 1,441,195, as follows:

"* * complementary centering devices disposed above platforms and into which the upper ends of the cans and their caps are projected, * * "

In defendant's patent, above referred to, page 1, line 28, the specification reads:

"The present invention contemplates the use of a seaming machine having two vertical turrets disposed parallel to each other, each of said turrets being equipped with multiple spindles whereby the can and its cap will be initially seamed when standing *still or in a slow operation* * * "

Plaintiffs' seaming device encircles the can while it is in a slow operation, to wit: Turning one and one fourth turns during the partial revolution of the turret while the can is on the chuck. [92]

The issuance of a subsequent patent to the defendant Guenther raises the presumtion that there is a difference between plaintiffs' patent and his own in structure.

Bliss et al. vs. Spangler, 217 Fed. 394.

In the case last cited defendant had a later patent but infringement was nevertheless found.

The presumption is that there is patentable difference but not that by reason of the subsequent patent, infringement may be avoided.

The *Guenther* patent, No. 1,441,195, Jan. 2, 1923, has the same seaming head as contained in his patent of Dec. 31, 1912, No. 1,049,227 above discussed.

The defendants' 24–P machine has adapted and uses the same design and character of seaming tool for the first and second seaming operations that is used and has been used on the 1'4–P long prior to any alleged date of invention by the plaintiffs.

The seaming head for the first operation is Exhibit P. In the 1923 patent this seaming head has been adapted to operate on a revolving turret by means of cones, the same as in the earlier patent, but the cones in the later patent are operated by means of shifting yokes which are carried by a shaft extending upwardly fitted at their upper ends with rollers, which pass along a circular tracked cam by which they are given a reciprocating movement with pins.

Even if the Guenther 1923 machine be considered as having an advantage over plaintiffs' machine in that it curls a tighter seam on the first operation, it seems to me nevertheless dominated by plaintiffs' idea and plaintiffs' invention as covered by claims 2 and 4. The same final result, and substantially the same first seaming result is accomplished and by substantially the same means.

Plaintiffs' seaming means when described, as in Claim 2 "means encircling the can top for forming seams between the can tops and cans" comes in the same classification as Brenzinger, Black, Guenther and Walsh, of which Branzinger, Black [93] and Guenther encircle the can-top by rollers traversing a circular course of travel around the can and can-top, and Walsh physically encircles the can-top and cap with a seaming head to form the seam. Guenther and plaintiffs' patented structure both physically encircle the can top and can and form the seam by mechanically encircling the can-top with a circular path of travel for the impingement of the seaming means around the can top. Both also center the can and can top.

Plaintiffs' and defendants' first seaming means and all parts and features thereof and all the general combination of the machines, both as to detail and total combination and mode of operation are substantially the same.

It is plainly apparent that defendants' can seaming encircling means are the mechanical equivalent of plaintiffs' can seaming encircling means, the physical encircling feature not even being necessary to that end. I therefore find claim 2 is infringed.

As to Claim 4 plaintiffs' counsel has, in his brief, read claim 4 upon defendants' structure. We reproduce same having checked it with the patents referred to.

To apply Claim 4 of the main patent (of Exhibit 3) to Guenther's letters patent Numbers 1,441,195 and 1,440,143 and 1,450,418 it appears:

Referring now to those patents we find a "pair of parallel vertically extending shafts one of which is tubular" comprises the shaft 12 of patent 1,440,-143, and the shaft 10 of patent 1,450,418.

"means for rotating said shafts continuously in corresponding directions"—the gear train, including the gear 20 of patent 1,440,143, and the unnumbered gear with which it meshes; and gear train 56, 59 and 60, patent 1,441,195.

"a third shaft extending through the tubular shaft adapted to be rotated in a reverse direction in relation to said tubular shaft"—the shaft 11 in patent 1,440,143; and shaft 42 in patent 1,441,195. [94]

"a gear mounted on the third shaft,"—the gear 32 of patent 1,440,143.

"a crosshead on the tubular shaft"—the spider or crosshead 14 in patent 1,440,143.

"a series of spindles on said crosshead,"—the spindles 29 in patent 1,440,143.

"pinions on said spindles meshing with the gear on the third shaft,"—the pinions 31 meshing with the gear 32 of patent 1,440,143.

"can top engaging means on said spindles,"—the clamping heads 26 of patent 1,440,143.

"Seam rolling means carried by said crosshead co-operating with the can top engaging means to roll the seams between the can tops and can bodies as they are spun by the rotation of said spindles during partial revolution of the tubular shaft," the seam rolling means shown in figure 2 in detail of patent 1,440,143.

"means for supporting the cans to position the tops in operative relation to the seam rolling means,"—the circular supports 24 at the upper ends of the spindles 17 in patent 1,440,143.

"means on the other shaft for forming a seam between the can top and can body during a partial revolution of the shaft and while it is in motion" —the seaming rollers 54 and their adjuncts of patent 1,440,143; and the seam forming means 36, 38 of patent 1,450,418, and their adjuncts; or the seaming rollers 31 and slotted rings or so-called "bell members" 35' of patent 1,441,195, and adjuncts.

"and means for transferring the cans from the seam forming means to the seam rolling means" the so-called star wheel 35a of patent 1,441,195, or the transfer member 22, between the turrets A and B in patent 1,440,143.

The fact that defendants have added a shaft to the first turret has not changed the directions of motions or mode of operation of the other shafts or parts. It is an addition which does not avoid infringement. [95]

Stebler vs. Riverside Heights, etc., 205 Fed. 735.

The mode of operation of the defendants' machine and its parts, as covered by the combination of Claim 4, the combinations and subcombinations and parts are substantially the same. In view of the above, I find claim 4 is also infringed.

The other claims of the patent I find not infringed as they all are limited more or less to means for spinning the can on the first operation which defendants' machine does not do.

The defendant Guenther before entering upon the manufacture of the 24-P machine herein charged to infringe took legal advice in regard to his rights in the matter as to whether or not there was any likelihood of his infringing any prior patents, including those of the plaintiffs, and the advice that he was given was that such structure would not infringe; it further appearing that the advice in regard to this matter was sought as early as May, 1918. That again when the defendants undertook the building of their machine in 1920 they were again advised that there was no infringement of any existing patent then known to their counsel, including the main patent in suit. That when the machine was completed it appears that defendants again had the matter resubmitted to their counsel with the same advice.

As the decree must run in favor of the defendant dismissing the complaint as to two patents and finding infringement as to one, I find the costs should be assessed two-thirds against the plaintiffs and one-third against the defendants. The defendant Guenther I find jointly liable with the defendant company.

Counsel were given 20 days from the date of receiving the draft report in which to present their exceptions or suggestions thereto and leave was given either party to request and be privileged to have an argument upon points or questions raised at that time, such argument to be set by the Master as he might order. Exceptions and suggestions were [96] filed December 4, 1923, by counsel for plaintiffs and objections and requested findings were filed by counsel for defendants December 5, 1923. On December 7, 1923, the Master addressed a letter to defendants' associate counsel calling attention to the nature of defendants' objections and the Master's embarrassment in proceeding while there were any charges of bias or prejudice on the record. The charges not having been withdrawn the Master on December 14, 1923, rescinded the order allowing further argument, adopted the tentative conclusions he had reached on plaintiffs' exceptions before receiving defendants' objections, considered certain of defendants' objections well taken and that certain requested findings should be inserted and prepared this report in accordance with the draft report and amendments accepted.

I am fully satisfied that correct conclusions have been reached and all without bias or prejudice.

I conclude and report that plaintiffs are entitled to an injunction in the usual form as prayed for against infringement of claims 2 and 4 of patent No. 1,203,295, and to the usual decree for an assessment of damages and accounting of profits from February, 1921, when the first infringing machine was being constructed after full knowledge

of plaintiffs' patent, to the date of the Master's report.

Respectfully submitted, December 20, 1923. CHARLES C. MONTGOMERY,

Special Master. [97]

Filed Dec. 21, 1923.

[Title of Court and Cause.]

MEMORANDUM OPINION. July 14, 1924.

RAYMOND IVES BLAKESLEE, Esq., and J. CALVIN BROWN, Esq., Attorneys for Plaintiffs.

CHARLES E. TOWNSEND, Esq., Attorney for Defendants.

PARTRIDGE (Orally).—The above matter was heard in Los Angeles, by the Master, Mr. Montgomery.

The action is in form an action for an injunction, damages and accounting for infringement of a patent for a can heading machine. The defense raised was, in the first place, that the patents in suit were void in that they were anticipated by a publication and previous patents. The master found that the first two patents of the plaintiffs were not infringed, but that the third, or the patent for a combination, was valid and that two claims of it were infringed.

The evidence was exceedingly voluminous and briefs have been filed, as well as four days' oral
argument. I wish that I could take the time to write an opinion in the cause, but the pressure of business here is such that it is impossible.

However, the state of the art at the time of the issuance of plaintiffs' third patent (the one that was found to be infringed) was that there were in the market and patents issued therefor, various single turret devices by which cans could be closed without the use of solder. The plaintiff, however, for the first time, devised a two-turret machine, by which cans could be received into the first turret with means by which the speed of the cans could [133] be accelerated and in the first turret perform what is known as the first seaming operation by means of a certain eccentric ring moving around the rim of the can. It also embodied a device by which, as the can passed on its way, there was delivered by means of a trip, a cover directly over and upon the can. It then contained means by which the can was passed from the first to the second turret and there the final seaming was concluded, the result of which was that a perfectly air tight seam was created, without the use of solder or anything of that sort.

The defendants' device is in practically all respects the same as the plaintiffs', except that the first seaming operation is performed, not by an eccentric ring, but by a series of rollers worked with a cone.

Now then, it is evident from all the testimony that was produced, that the method of sealing cans without the use of solder prior to the plaintiffs' patent was imperfect, for the reason that these cans as used by the canning companies, are filled at the time they are passed through the machine. It is, therefore, of the utmost importance that two things be accomplished: The first is that the speed of the can be accelerated gradually and that the cans pass through the machine without pause, so that the contents will not be spilled or slopped out; and secondly, that the cans be hermetically sealed so no air can reach the fruit or vegetables contained in them. Both of these were accomplished by the plaintiffs' machine and commercial use of it has demonstrated its utility.

It is claimed on behalf of the defendants, however, that it is a mere aggregation of prior elements, while plaintiffs contend that it is a combination. In the case of Loom Co. vs. Higgins, 105 U. S. 591, it is said, "that if a new combination and arrangement of known elements produce a new and beneficial result, never obtained before, it is evidence of invention." Later cases, however, have broadened this rule; particularly the case of Potts vs. Creager, 155 U. S. 608, from which these principles are fairly deducible:

That is, first, that if the new use is so nearly analogous [134] to the former one, that the applicability of the device to its new use would occur to a person of ordinary mechanical skill, it is only a case of double use;

Secondly, if the relations between them be remote, and especially if the use of the old device produce a new result, it may be invention; Thirdly, in considering this question, the fact that defendants obtained a patent of their own to accomplish their result is to be considered; and

Fourthly, the doctrine of the Goodyear Dental Vulcanite Company vs. Davis, to the effect that where novelty is in doubt, the fact that the device has gone into general use, and displaced other devices employed for a similar purpose, is sufficient to turn the scale in favor of the invention.

Applying this principle, it is perfectly apparent to me that this patent, that is the third patent of plaintiff in suit, is a true combination and not an aggregation and that it does not produce a new result, it produces a beneficial advance on the old result, in that its seaming is tight and the fruit is not spilled.

A motion was made to dismiss the Los Angeles Can Company as plaintiff and I can see no reason why defendant could object to that. The Los Angeles Can Company is therefore dismissed.

The findings and judgments as recommended by the Master are approved. The exceptions are all overruled. Injunction will issue against invention claims 2 and 4 of patent No. 1,203,295, with an accounting before the Master since February, 1921.

Judgment will be for the defendant as to the first two patents in suit.

The Master found that inasmuch as the judgment must go for defendant as to the first two patents, costs should be paid two-thirds by plaintiff and one-third by defendant. I am unable to agree with that for the reason that I think, under the

circumstances, the defendant infringed the third patent in suit with full knowledge of it. I therefore disapprove that part of the recommendation of the Master and direct that the costs be paid [135] entirely by defendant.

Filed July 17, 1924. [136]

[Title of Court and Cause.]

INTERLOCUTORY DECREE.

This cause having come on to be heard on exceptions to the report of the Special Master on reference herein heretofore made and ordered; and said exceptions having been argued by counsel; and briefs having been filed by counsel; and due consideration thereunto having been given, it is hereby

ORDERED, ADJUDGED AND DECREED as follows, viz.:

1. That United States letters patent No. 1,301,348, issued April 22, 1919, to plaintiffs Ray O. Wilson and Arthur D. Summer have not been in-fringed by defendants.

2. That United States letters patent No. 1,250,406, issued December 18, 1917, to plaintiffs Ray O. Wilson and Arthur D. Summer have not been infringed by defendants.

3. That United States letters patent No. 1,203,295, issued October 31, 1916, to plaintiffs Ray O. Wilson and Arthur D. Sumner, are good and valid in law as to each and all of the claims thereof,

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and entitled to a broad interpretation, *but none of the claims thereof other than claims 2 and 4 have been infringed by defendants.

4. That the plaintiffs are the owners of said letters patent hereinabove enumerated and each thereof.

5. That the defendants have jointly and severally infringed claims 2 and 4 and each thereof of said letters patent No. 1,203,295, by making, using and selling to others to use, or leasing or disposing of to others to use, machines for heading cans and capping or closing cans, known as P-24 or 24-P [137] machines and so or otherwise referred to in the record of this cause.

6. That plaintiff Los Angeles Can Company be, and hereby is, dismissed as a party plaintiff over objections of defendants.

7. That the exceptions of said report of said Special Master be and hereby are all overruled.

8. That an injunction be issued against defendants, Angelus Sanitary Can Machine Company and Henry I. Guenther, perpetually enjoining and restraining them, their officers, directors, agents, attorneys, workmen, servants, employees, and associates, and each and every of them, from hereafter making or causing to be made, selling or causing to be sold, leasing or causing to be leased, or otherwise disposing of or causing to be disposed of, in any manner, directly or indirectly, any machine or device or mechanism for heading cans or capping or

*Amended by order of August 25th, 1924.

CHAS. N. W.

closing cans, such as that heretofore made or used or sold or leased or disposed of by defendants, and known as P-24 or 24-P machines or the like, or any machine or device or mechanism containing or embodying the inventions patented in or by claims 2 and 4 of said letters patent No. 1,203,295, or any machine or mechanism or device capable of being used in infringement thereof, or any part or parts of or for any such machine or device or mechanism capable of being combined or used in infringement thereof, and from directly or indirectly infringing upon either or any of said claims 2 and 4 of said letters patent No. 1,203,295 in any manner whatsoever.

9. That plaintiffs recover from defendants Angelus Sanitary Can Machine Company and Henry I. Guenther, and each of same, the profits and damages caused by, accruing, flowing, or received, since February, 1921, from said defendants' [138] infringement and each infringement of said letters patent No. 1,203,295.

10. That an accounting be had to determine the profits and damages caused by, accruing, flowing or received from the infringement and each of same by defendants, as aforesaid.

11. That this cause be referred to Charles C. Montgomery, Esq., as Master *pro hac vice* to ascertain such profits and damages and report the same to the Court.

12. That the findings and judgments as recommended by the Special Master are approved, with the exception of the recommendation as to costs, which recommendation is disapproved and it is ordered that the costs be paid entirely by defendants.

13. That plaintiffs have and recover judgment against defendants Angelus Sanitary Can Machine Company and Henry L. Guenther and each of same for the sum \$_____, plaintiffs' entire costs and disbursements herein, to be taxed.

14. That as to letters patent No. 1,301,348, issued April 22, 1919, and No. 1,250,406, issued December 18, 1917, held not to have been infringed, it is ordered that the bill of complaint be dismissed in respect thereto.

15. That as to letters patent No. 1,124,553, issued Jan. 12, 1915, originally included in this suit and withdrawn by plaintiffs, it is ordered that the bill of complaint be dismissed in respect thereto without prejudice.

Dated: August 4, 1924.

JOHN S. PARTRIDGE,

U. S. District Judge.

Approved as to form, as provided in Rule 45.

Solicitors and Counsel for Defendants. Decree entered and recorded 8/7/24.

CHAS. N. WILLIAMS,

Clerk.

By Louis J. Somers,

Deputy Clerk. [139]

Filed Aug. 7, 1924. [140]

ORDER AMENDING INTERLOCUTORY DE-CREE.

Sufficient cause thereunto appearing, it is OR-DERED that the Interlocutory Decree herein dated August 5, 1924, may be and the same is hereby amended by substituting a semi-colon for the period at the end of paragraph 3 thereof, and adding thereafter:

"but none of the claims thereof other than claims 2 and 4 have been infringed by defendants."

JOHN S. PARTRIDGE,

U. S. District Judge.

Dated: San Francisco, California, August 25th, 1924.

Approved as to form, as provided in Rule 45.

Solicitor and of Counsel for Defendants. Decree entered and recorded Aug. 29, 1924. CHAS. N. WILLIAMS,

Clerk.

By Edmund L. Smith, Deputy Clerk.

Filed Aug. 29, 1924. [141]

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[Title of Court and Cause.]

WRIT OF INJUNCTION.

The United States of America,

Southern District of California,

Southern Division,—ss.

The President of the United States of America, to Angelus Sanitary Can Machine Company, and Henry L. Guenther, Defendants in the Aboveentitled Cause, Their Officers, Directors, Agents, Attorneys, Workmen, Servants, Employees, and Associates, and Each and Every of Them, GREETING:

WHEREAS, Ray O. Wilson, Arthur D. Sumner and Franklin F. Stetson have filed on the Chancery side of the District Court of the United States for the Southern District of California, in the Southern Division thereof, a bill against Angelus Sanitary Can Machine Company, a corporation, and Henry L. Guenther, both personally and as president of said defendant corporation, and, pursuant to an interlocutory decree dated August 5, 1924, have obtained an allowance of injunction,

NOW, THEREFORE, we, further having respect to the matters in said bill contained, do hereby strictly command and perpetually enjoin and restrain you, your officers, directors, agents, attorneys, workmen, servants, employees, and associates, and each and every of them, from hereafter making or causing to be made, selling or causing to be sold, leasing or causing to be leased, or otherwise dispos-

ing of or causing to be disposed of, in any manner, directly or indirectly, any [1411/2] machine or device or mechanism for heading cans or capping or closing cans, such as that heretofore made or used or sold or leased or disposed of by you or either of you, and known as P-24 or 24-P machines or the like, or any machine or device or mechanism containing or embodying the inventions patented in or by claims 2 and 4 of said letters patent No. 1,203,295, or any machine or mechanism or device capable of being used in infringement thereof, or any part or parts of or for any such machine or device or mechanism capable of being combined or used in infringement thereof, and from directly or indirectly infringing upon either or any of said claims 2 and 4 of said letters patent No. 1,203,295 in any manner whatsoever (in accordance with the decretal provision in that regard of paragraph 8 of the interlocutory decree made, and signed herein August 5, 1924, and entered herein August 7, 1924).

Hereof fail not, under penalty of the law thence ensuing.

WITNESS the Honorable BENJAMIN F. BLEDSOE, United States District Judge, for the Southern District of California, this 7th day of August, 1924.

[Seal]

CHAS. N. WILLIAMS,

Clerk.

By R. S. Zimmerman,

Deputy Clerk. [142]

Filed Aug. 26, 1924. [143]

[Title of Court and Cause.] PETITION FOR ORDER ALLOWING AP-PEAL.

To the Honorable Court, Above Entitled:

The above-named defendants, Angelus Sanitary Can Machine Company and Henry L. Guenther, conceiving themselves aggrieved by the decree filed and entered on the 7th day of August, 1924, in the above-entitled cause, do hereby appeal therefrom to the United States Circuit Court of Appeals, for the Ninth Judicial Circuit for the reasons and upon the grounds specified in the assignment of errors, which is filed herewith, and pray that this appeal may be allowed, that a citation issue as provided by law, and that a transcript of the record, proceedings, exhibits and papers, upon which said decree was made and entered as aforesaid, duly authenticated, may be sent to the Circuit Court of Appeals for the Ninth Circuit, sitting at San Francisco.

And your petitioners further pray that an order be made fixing the amount of security which the defendants, Angelus Sanitary Can Machine Company and Henry L. Guenther, shall give and furnish upon such appeal, and that a [144] citation to plaintiffs may issue accordingly.

Dated: August 7, 1924.

CHAS. E. TOWNSEND,

JAS. E. KELBY,

Solicitors for Defendants. [145]

[Title of Court and Cause.]

ORDER ALLOWING APPEAL.

The foregoing petition for appeal is allowed upon the petitioners filing a bond in the sum of Three Hundred Dollars (\$300.00), with sufficient sureties, to be conditioned as required by law.

And it is further ordered that all further proceedings in this Court, except the issuance of preliminary injunction, be stayed until the further order of this Court pending decision on appeal by the Circuit Court of Appeals for the Ninth Circuit.

JOHN S. PARTRIDGE,

Judge of the United States District Court for the Northern District of California, and Designated by the Presiding Judge of the Circuit Court of Appeals for the Ninth Circuit to Hear and Determine the Above-entitled Cause.

Dated: August 7, 1924. [146]

Filed Aug. 11, 1924. [147]

[Title of Court and Cause.]

ASSIGNMENTS OF ERROR.

Now comes Angelus Sanitary Can Machine Company, a corporation, and Henry L. Guenther, defendants in the above cause in the court below, and appellants herein, by Chas. E. Townsend, Esq., their solicitor and counsel, and say that in the record and proceedings in the said cause in the said court below there is manifest error, and they particularly specify as the errors upon which they will rely and which they will urge upon their appeal in the above-entitled cause:

(1) That the District Court of the United States for the Southern District of California, Southern Division, erred in holding that letters patent No. 1,203,295 were valid.

(2) That the District Court of the United States for the Southern District of California, Southern Division, erred in holding that letters patent No. 1,203,295 were infringed either as to Claims 2 and/ or 4 or any claims of said patent.

(3) That the District Court of the United States for the Southern District of California, Southern Division, erred in holding that Claims 2 and 4 of patent No. 1,203,295 and/or either of them represented true combinations and not aggregations.

(4) That the District Court of the United Statesfor the Southern District of California, SouthernDivision, erred in not dismissing plaintiff's bill.[148]

(5) That the District Court of the United States for the Southern District of California, Southern Division, erred in approving the findings and judgments as recommended by the Master.

(6) That the District Court of the United States for the Southern District of California, Southern Division, erred in overruling the exceptions of the defendant.

(7) That the District Court of the United States for the Southern District of California, Southern Division, erred in decreeing that an injunction should issue with respect to patent in suit No. 1,203,295, and particularly Claims 2 and 4 thereof.

(8) That the District Court of the United States for the Southern District of California, Southern Division, erred in ordering an accounting.

(9) That the District Court of the United States for the Southern District of California, Southern Division, erred in rendering judgment against the defendant with respect to patent in suit No 1,203,-295.

(10) That the District Court of the United States for the Southern District of California, Southern Division, erred in awarding costs against the defendant.

(11) That the District Court of the United States for the Southern District of California, Southern Division, erred in dismissing the Los Angeles Can Company as a party plaintiff.

(12) That the District Court of the United States for the Southern District of California, Southern Division, erred in deciding "that the method of sealing cans without the use of solder prior to the plaintiffs' patent was imperfect," it being contrary to the facts and the evidence. [149]

(13) That the District Court of the United States for the Southern District of California, Southern Division, erred in holding that acceleration of can travel was part of patent in suit No. 1,203,295, the only patent on which the plaintiffs' contentions were sustained. vs. Ray O. Wilson et al. 109

(14) That the District Court of the United States for the Southern District of California, Southern Division, erred in the application of the law and the facts.

San Francisco, California, August 7, 1924.

CHAS. E. TOWNSEND,

JAS. E. KELBY,

Solicitors and Counsel for Defendants.

Filed Aug. 11, 1924. [150]

[Title of Court and Cause.]

ORDER ALLOWING WITHDRAWAL OF ORIGINAL EXHIBITS.

On motion of Chas. E. Townsend, Esq., solicitor for defendants, and good cause appearing therefor, it is by the Court now ordered:

That all exhibits in the above-entitled case, both plaintiffs' exhibits and defendants' exhibits, including models, drawings, copies of patents, books and printed publications, and which are impracticable to have copied or duplicated, be, and they are hereby allowed to be withdrawn from the files of this court in said case and transmitted by the Clerk of this court to the United States Circuit Court of Appeals for the Ninth Circuit as a part of the record upon appeal for the defendants herein to the said Circuit Court of Appeals; said original exhibits to be returned to the files of this court upon the de-

termination of said appeal by said Circuit Court of Appeals.

JOHN S. PARTRIDGE,

Judge of the United States District Court for the Northern District of California, and designated by the Presiding Judge of the Circuit Court of Appeals for the Ninth Circuit to Hear and Determine the Above-entitled Cause.

Dated: August 7, 1924. [151]

Filed Aug. 11, 1924. [152]

[Title of Court and Cause.]

BOND-STIPULATION FOR COSTS ON AP-PEAL.

The Angelus Sanitary Can Machine Company, a corporation, and Henry L. Guenther, having filed, or being about to file a petition for appeal to the United States Circuit Court of Appeals for the Ninth Circuit from the judgment filed and entered in this matter on the 7th day of August, 1924.

NOW, THEREFORE, the Fidelity and Deposit Company of Maryland, a corporation of the State of Maryland, authorized to do a general surety business as surety, hereby undertakes in the sum of Three Hundred and 00/100 (\$300.00) Dollars, and promises on the part of the Angelus Sanitary Can Machine Company, a corporation, and Henry L. Guenther, that it will pay all costs and damages which may be awarded against it on the said appeal, or on the dismissal thereof; and the undersigned surety further consents that in case of default or contumacy on the part of the said Angelus Sanitary Can Machine Company, a corporation, and said Henry L. Guenther, execution to the amount named in this stipulation may issue against the goods, chattels and lands of the undersigned.

Signed, sealed and dated this 9th day of August, 1924.

FIDELITY AND DEPOSIT COMPANY OF MARYLAND.

By W. M. WALKER,

Attorney-in-fact.

Attest: S. M. SMITH, [Seal]

Agent.

The foregoing bond approved this 11th day of August, 1924.

JOHN S. PARTRIDGE,

District Judge.

Examined and recommended for approval as provided in Rule 29.

> LAWLER & DEGNAN, By OSCAR LAWLER, Attorneys. [154]

State of California,

County of Los Angeles,—ss.

On this 9th day of August, 1924, before me, T. E. Seaton, a notary public, in and for the County and State aforesaid, duly commissioned and sworn, personally appeared W. M. Walker and S. M. Smith, known to me to be the persons whose names are subscribed to the foregoing instrument as the attorney-in-fact and agent, respectively of the Fidelity and Deposit Company of Maryland, and acknowledged to me that they subscribed the name of Fidelity and Deposit Company of Maryland thereto as Principal and their own names as attorney-in-fact and agent, respectively.

[Seal] T. E. SEATON, Notary Public in and for the State of California, County of Los Angeles.

Filed Aug. 12, 1924. [155]

[Title of Court and Cause.]

BOND.

The Angelus Sanitary Can Machine Company, a corporation, and Henry L. Guenther, having filed their petition for appeal to the United States Circuit Court of Appeals for the Ninth Circuit from the Judgment filed and entered in this matter on the 7th day of August, 1924, and pursuant to the further order of this Court dated September 2d, 1924:

NOW, THEREFORE, the Fidelity and Deposit Company of Maryland, a corporation of the State of Maryland, authorized to do a general surety business as Surety, hereby undertakes in the sum of Ten Thousand Dollars (\$10,000), and promises on the part of the Angelus Sanitary Can Machine Company, a corporation, and Henry L. Guenther, that it will answer and pay all damages and costs if they fail to make their plea good; and the undersigned Surety further consents that in case of default or contumacy on the part of the said Angelus Sanitary an Machine Company, a corporation, and said Henry L. Guenther, execution to the amount named in this stipulation may issue against the goods, chattels and lands of the undersigned.

Signed, sealed and dated this 18th day of September, 1924. [156]

FIDELITY AND DEPOSIT COMPANY OF MARYLAND.

By C. K. BENNETT,

Attorney-in-fact.

Attest: L. C. ELLIS, (Seal)

Agent.

The foregoing bond approved this 18th day of September, 1924.

JOHN S. PARTRIDGE,

District Judge.

Examined and recommended for approval as provided in Rule 29.

CHAS. E. TOWNSEND, Attorney.

State of California,

City and County of San Francisco,—ss.

On this 18th day of September, A. D. 1924, before me, John McCallan, a notary public in and for the City and County of San Francisco, residing therein, duly commissioned and sworn, personally appeared C. K. Bennett, attorney-in-fact, and L. C. Ellis, agent, of the Fidelity and Deposit Company of Maryland, a corporation, known to me to be the persons who executed the within instrument on behalf of the corporation therein named and acknowledged to me that such corporation executed the same, and also known to me to be the persons whose names are subscribed to the within instrument as the attorney-in-fact and agent respectively of said corporation, and they, and each of them, acknowledged to me that they subscribed the name of said Fidelity and Deposit Company of Maryland thereto as principal and their own names as attorney-in-fact and agent respectively.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the City and County of San Francisco the day and year first above written.

[Seal] JOHN McCALLAN, Notary Public in and for the City and County of San Francisco, State of California. [157]

Filed Sep. 19, 1924. [158]

[Title of Court and Cause.]

PRAECIPE FOR TRANSCRIPT ON APPEAL.

To the Clerk of the United States District Court:

Please incorporate the following papers, documents and exhibits in the transcript of record on appeal in the above-entitled cause, omitting title of cause and omitting copying of all documentary exhibits, as specified below:

(1) Bill of complaint.

(2) Answer of defendants.

- (3) Sub-paragraph (d) of paragraph numbered III of plaintiffs' bill of particulars dated June 5th, 1922.
- (4) Transcript of entire record of all proceedings and testimony in full, in the exact words of the witnesses, in question and answer form.
- (5) Final report of Special Master dated December 20th, 1923.
- (6) Defendants' objections to report of Special Master in Chancery.
- (7) Oral opinion of District Judge Partridge.
- (8) Interlocutory decree dated August 4th, 1924.
- (9) Writ of injunction dated August 7th, 1924. [159]
- (10) All exhibits in the cause.
- (11) Defendants' petition for order allowing appeal.
- (12) Defendants' assignment of errors.
- (13) Order allowing appeal of defendants.
- (14) Order allowing withdrawal of original exhibits.
- (15) Order for full transcript for record on appeal.
- (16) Defendants' cost bond on appeal.
- (17) Citation to plaintiffs.
- (18) This practipe.

In addition to the above, please transmit to the Circuit Court of Appeals without certification, but in the nature of an exhibit, the four volumes of defendants' condensation of evidence filed before

the Special Master and returned into the above-entitled court.

> CHAS. E. TOWNSEND, LAWLER & DEGNAN, JAS. E. KELBY,

Solicitors for Defendant-Appellants.

Dated: August 21, 1924.

Filed Aug. 25, 1924. [160]

APPELLEES' PRAECIPE PURSUANT TO EQUITY RULE 75.

To the Clerk of the Court:

Pursuant to Equity Rule 75, please incorporate the following papers and documents in the Transcript of Record on Appeal in the above-entitled cause, omitting title of cause, as follows, all in addition to those papers and documents specified in appellants' praecipe:

Plaintiffs' motion and notice of motion for bill of particulars, filed August 7, 1922.

Plaintiffs' motion and notice thereof for further bill of particulars, filed November 27, 1922.

Plaintiffs' objections to defendants bill of particulars and authorities, filed December 6, 1922.

Notice of defendants, dated April 17, 1922, of filing two blue-prints pursuant to order of Court as required by order for bill of particulars, with said blue-prints.

Defendants' bill of particulars pursuant to order of Court made October 2, 1922.

Affidavit of Henry L. Guenther, re bill of particu-

lars, dated May 27, 1922, with blue-prints attached.

Plaintiffs' exceptions to report of Special Master.

In addition, subject to Rule 75, appellees give notice to the Clerk that they object to clause 4 of appellants' praceipe calling for transcript of entire record of all proceedings and testimony, etc., inasmuch as motion was presented and argued before Honorable John S. Partridge, who decided this case and signed decree herein, on Monday, August 25, 1924, asking that an order be made requiring condensation of the evidence, which said motion was taken under advisement, and appellees as yet have no notice of any ruling thereon.

Objection is also made to incorporation in the transcript of the item of clause 13 inasmuch as it was ruled on motion to set aside this order, by Judge Partridge, August 25, 1924, that this order should be amended to show that the final or perpetual [161] injunction was not stayed, no preliminary injunction having been granted, and the Court also took under advisement the amount of supersedeas security to be required of appellants for staying the other proceedings in the case, including the accounting and taxation and judgment for costs.

An objection is similarly made to the inclusion of item 15 of appellants' practipe in the transcript on the same grounds as urged against the inclusion of item $4 \ supra$.

Objection is also made to the final paragraph of appellants' practice, inasmuch as the four volumes referred to are not exhibits in the case, are not briefs in the case, are not records of proceedings in the case, and as the same cannot be transmitted

to the Circuit Court of Appeals without certification, there being no authority for any such procedure.

The Clerk is also asked to include the order made by Judge Partridge August 25, 1924, amending the interlocutory decree herein.

The Clerk is also asked to incorporate in the transcript on appeal this practipe of appellees, and all orders now pending before Judge Partridge.

Dated Los Angeles, Cal., August 30, 1924.

RAYMOND IVES BLAKESLEE,

J. CALVIN BROWN,

Solicitors for Plaintiffs-Appellees.

Filed Aug. 30, 1924. [162]

[Endorsed]: No. 4420. United States Circuit Court of Appeals for the Ninth Circuit. Angelus Sanitary Can Machine Company, a Corporation, and Henry L. Geunther, Appellants, vs. Ray O. Wilson, Arthur D. Sumner, Franklin F. Stetson and Los Angeles Can Company, a Corporation, Appellees. Transcript of Record. Upon Appeal from the United States District Court for the Southern District of California, Southern Division.

Received November 20, 1924.

F. D. MONCKTON, Clerk.

Filed December 5, 1924.

F. D. MONCKTON,

Clerk of the United States Circuit Court of Appeals for the Ninth Circuit.

By Paul P. O'Brien, Deputy Clerk.

DEFENDANT'S EXHIBIT "N-3."

[Endorsed]: No. F-72-Eq. U. S. Dist. Court, So. Dist. of Cal., So. Div. Wilson vs. L. A. Sanitary Can Co. Pltfs. Exhibit No. 3. Filed January 4, 1923. C. C. Montgomery, Special Master. J. P. D.

Filed Dec. 27, 1923. Chas. N. Williams, Clerk. By L. J. Cordes, Deputy Clerk.

No. 4420. United States Circuit Court of Appeals for the Ninth Circuit. Filed Dec. 5, 1924. F. D. Monckton, Clerk.

1914 (Ex'r's Book) 16–266 Number (Series of 1900), Patent No. 1203295 856,117

Name-Ray O. Wilson and Arthur D. Sumner, Assors. of 30% to said Wilson, 30% to said Sumner and 40% to F. F. Stetson, of Los Angeles, Cal.

r of Los Angeles,

County of-

Div. 14

State of California.

Invention-Can Heading Machines.

ed		Original	Renewed	
fiil	ED	Petition—	Aug. 10, 1914	, 191
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		for Issue	Feb. 4, 1916	, 191
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	Not	tice of Allowance	Feb. 5, 1916	, 191
	By Commissioner. By Commissioner.			
		Cert	v	
	Fir	nal Fee Cash, dated	Aug. 4, 1916	, 191
	6 (" " Cert \$20	Aug. 9, 1916	, 191
	Pat	tented (Dissolved)	Oct. 31, 1916	, 191

Attorney—Hazard & Strause, 639 Citizen's Natl. Bk. Bldg. R. S. BERRY, 506 Central Bldg., Los Angeles, Calif. Associate Attorney (No. of Claims Allowed 18) Title as Allowed— Can Heading Machine. (Cl. 113-14)

[Letterhead of Hazard & Strause.]

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Serial No. 856,117. Paper No. 1

Application.

U. S. Patent Office. Aug. 12, 1914. Division 14.

PETITION AND POWER OF ATTORNEY. To the Honorable Commissioner of Patents:

Your Petitioners Arthur D. Sumner, whose post office address is 808 West Avenue 50, Los Angeles, California, and Ray O. Wilson whose P. O. address is 1022 Eagle Rock Drive, Los Angeles, California, a citizens of the United States, residing at Los Angeles, in the County of Los Angeles and State of California, prays that letters patent may be granted to him them for the improvement in CAN HEADING MACHINES set forth in the annexed specifications, and they hereby appoint the firm of HAZARD & STRAUSE, whose register number is 8053, the individual members of which firm are Henry T. Hazard and Edmund A. Strause, of 639 Citizens National Bank Building, Los

Angeles, California, his their attorneys with full power of substitution and revocation to prosecute this application, to make alterations and amendments therein, to receive the patent and to transact all business in the PATENT OFFICE connected therewith.

(Sign Here) AN RAY O. WILSON, ARTHUR D. SUMNER.

SPECIFICATION:

To All Whom It May Concern:

Be it known that

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We, Ray O. Wilson and Arthur D. Sumner, both citizens of the United States, residing at Los Angeles, in the county of Los Angeles, State of California, have invented new and useful Improvements in Can-Heading Machines, of which the following is a specification.

This invention relates to a can heading machine, and particularly pertains to a mechanism for double seaming the ends or caps on metal cans.

It is the object of this invention to provide a can heading machine for placing the bottom ends on cans in the manufacture of the same and for double seaming the covers on the cans after the materials to be contained in the can have been placed therein, and the particular object is to provide a machine of this character which is continuous in operation, that is, in which the can is conveyed continuously through the machine in the heading operation without stop and start movements.

A further object is to provide a can heading machine which, by reason of a continuous and non-intermittent progress of cans there through, is capable of a more rapid and consequently larger output that is effected by most can heading machines now generally in use.

A further object is to provide a can heading machine in which a large number of cans will be operated on simultaneously and advanced continuously through the machine without interruption.

A further object is to provide a can heading machine which is compact so as to occupy small floor space and in which the parts are so arranged as to be readily accessible for removal, repairs or adjustment.

A further object is to provide means for feeding the ends of the cans to the can bodies and to provide means whereby the can body and the top therefor are delivered simultaneously to the primary seam forming mechanism.

A further object is to provide a seaming mechan-856117

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ism by which the joints between the can body and ends will be effectively sealed by spinning the contiguous edges of the can body and can-top together in a double seam, and which is effected whilst the can is advancing through the machine.

The invention is illustrated in the accompanying drawings, in which:

Figure 1 is a plan view of the can heading machine with end portions thereof broken away. Fig. 2 is a side elevation of same. Fig. 3 is a vertical section on the line 3-3 of Fig. 2, as seen in the direction indicated by the arrows. Fig. 4 is a vertical section on the line 4-4 of Fig. 2, as seen in the direction indicated by the arrows. Fig. 5 is a horizontal section on the line 5-5 of Fig. 2, illustrating the driving gears and indicating by arrows the direction of rotation of same. Fig. 6 is a horizontal section on the line 6-6 of Fig. 2, showing the can advancing mechanism. Fig. 7 is a detail in elevation of one of the stationary cam disks showing the formation of the cam groove on the periphery thereof, as seen on the line 7-7 of Fig. 6 in the direction indicated by the arrows. Fig. 8 is a diagrammatic view illustrating the movements of the can and the actions thereon during the double seaming operation. Fig. 9 is an enlarged detail section on the line 9-9 of Fig. 2, partly in elevation showing a can in position on the final double seamer. Fig. 10 is an enlarged detail vertical section on the line 10-10 of Fig. 2, illustrating the can in position on the initial seamer. Figs. 11, 12 and 13 are details in section of the initial seamer illustrating the manner in which the primary seam is formed between the can body and head. Figs. 14 and 15 are detail sections illustrating the manner 856117

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7658 of forming the initial seam on the can by the mechanism illustrated in Figs. 11, 12 and 13. Figs. 16, 17 and 18 are views illustrating the final seaming operation on the can and showing the method for effecting same. Fig. 19 is an enlarged detail showing the double seam between the can head and body as completed by the mechanism shown in Figs. 16, 17 and 18. Fig. 20 is an enlarged detail in plan of the can top seaming mechanism. Fig. 21 is a section and elevation on the line 21-21 of Fig. 20 illustrating the can tops as normally positioned in the can top feeding device. Fig. 22 is a vertical section on the line 22-22 of Fig. 21 showing a can top as delivered from the can top feeding mechanism. Fig. 23 is a detail section on the line 23–23 of Fig. 20, showing a can top positioned on the supporting plate at one side thereof.

More specifically, 25 indicates the stationary bed or base of the machine, which may be of any suitable construction, and which forms the main support of the various portions of the machine. Mounted in suitable bearings on the base 25 is a drive shaft 26 (reference being had to Fig. 5) which is fitted with a belt pulley 27 at one end thereof from which it may be rotated continuously from any suitable source of power; the opposite end of the drive shaft 26 being provided with a hand wheel 28 by means of which it may be rotated

manually when it is desired to adjust the positions of the various parts controlled thereby when the 856117

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3.

machine is not in operation.

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Mounted on the drive shaft 26 is a beveled pinion 29 meshing with a corresponding pinion on the underside of a spur gear 30, which in turn meshes with an idler gear 31 meshing with a large gear 32 mounted on a vertically extending tubular shaft 33; the gears 30 and 31 constituting speed reduction gears. A second beveled pinion 34 is mounted on the drive shaft 26 and meshes with a beveled gear 35 mounted on a shaft 36 which extends upwardly through the tubular shaft 33. Meshing with the gear 32 on one side thereof is a gear 37 on a vertical shaft 38 and meshing with the gear 32 on the side opposite the gear 37 is a gear 39 on a shaft 40, which gear 39 also meshes with a large gear wheel 41 on a shaft 42. A gear wheel 43 of a diameter slightly less than that of the gear wheel 41 meshes with the latter and also with a smaller gear 44; the gear 43 being mounted on a shaft 45 and the gear 44 on a shaft 46.

The tubular shaft 33, shaft 40 and shaft 42 extend upwardly through bearings 47, 48 and 49 carried by brackets 50, 51 and 52 respectively carried on an elevated portion of 53 of the base 25, and the shafts 38, 45 and 46 are carried upward

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through suitably mounted bearings. The shaft 46 extends above a can receiving and feeding table 54 which is secured to the shaft 46 and revoluble therewith, and rigidly mounted on the upper end of the shaft 46 is a pair of curved can engaging arms 55 extending on opposite sides of the sides of the shaft 46 adjacent the surface of the revoluble table 54. The shaft 45 has a horizontally extending can feeding wheel 56 mounted thereon which wheel is arranged immediately above the table 54 and is formed with a plurality of can receiving pockets 58 on its vertical edge which pockets are approximately semi-cylindrical and are adapted to engage the sides of cans fed thereto by means of the arms 55; the wheel 56 and the arms 55 being rotated in opposite directions and at such speeds in relation to each other that a can advanced by an arm 55 will be moved into a pocket 58 on the wheel 56 and carried around to the initial seam forming 856117

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mechanism later described. A curved guide rail 59 is arranged concentric with the wheel 56 and spaced therefrom and is adapted to engage the outer portions of the cans to maintain them in position in the pockets 58 as the wheel 56 revolves; this guide rail extending approximately half way around the wheel 56 on a plane below the upper face of the latter.

Means are provided for automatically feeding the can-tops to the cans as they are advanced by the wheel 56, which means is particularly illustrated in Figs. 20, 21 and 22, and includes a series of four upright guide members 60 arranged on the corners of a rectangle and between which the cantops are arranged in a stack; the guide members 60 being carried on horizontally-extending slotted plates 61 supported on brackets 62 and adapted to be rigidly secured to the latter by means of bolts 63 which pass through the slots in the plates 61; the plates 61 being adapted to be adjusted to position the guide members 60 to accommodate can-tops -a- of various diameters and to position them in proper relation to the cans advanced by the wheel 56. The brackets 62 are carried on a standard 62' shown in Fig. 22. The guide members 60, are so arranged as to dispose the can-tops stacked therebetween immediately over the pockets 58 on the wheel 56 so that when a can-top is discharged from the stack, as will presently be described, it will be deposited immediately above a can being advanced by the wheel.

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The entrops a are supported between the guide members 60 by means of a plate 64 which engages one edge of the lowermost can top which also rests on its opposite sides upon a pair of spaced supporting plates 65 and 66, as particularly shown in Figs. 22 and 23; each can top -a being formed with a depressed portion -b which is adapted to seat on the supporting plates 65 and 66.

The plates 65 and 66 are mounted on the undersides of the brackets 62 above the wheel 56 and the guide rail 59; the plate 65 connecting with the curved guide rail 59' arranged above the guide rail 59 with its upper face flush with the underside of the lower wall of a groove 67 formed on the inner 856117

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face of the guide rail 59', and the plate 66 connects with a curved rail 68 having a groove 69 on its inner face and arranged concentric with the curved rail 59' on a plane therewith. The grooves 67 and 69 are designed to receive peripheral flanges -cformed on the can-tops -a- to support the can-tops clear of the cans -d- as the latter are advanced by the wheel 56. The plate 64 is mounted on a curved arm 70 pivoted at 71 on a lug on the bracket 62; the outer end portion of the arm 70 being curved inwardly beneath the rail 59 to extend in the path of travel of the can advanced by the wheel 56 in such manner that the can will operate to rock the arm 70 on its pivot 71 to withdraw the plate 64 out of engagement with the lower can-top -a- and cause the latter to drop and be supported solely on the plates 65 and 66. The arm 70 will be moved by the action of the can as indicated in dotted lines in Fig. 20 and will be restored to its normal position by means of a spring 72; the plate 64 on returning to its normal position engaging the flange

-c- of the can top -a- arranged immediately above the can top previously dropped onto the plates 65 and 66. The forward edge of the plate 64 is formed with an inclined face which on engaging the edge of the can-top will act to slightly elevate that edge of the can-top so that can-top engaging members 73 carried by the wheel 56 will clear the can-top supported on the plate 64 and will engage the lowermost can-top supported on the plates 65 and 66.

The can-top engaging members 73 comprise outwardly and upwardly projecting fingers mounted on the upper edge of the wheel 56 to one side of the pockets 58; a can-top engaging member 73 being mounted at the upper outer edge of each pocket 58 as shown in Fig. 1, and operating when the wheel 56 is revolved, when a can is positioned in the pocket 58 to actuate the lever 70, to engage the can-top released by the plate 64, and advance the can-top along the grooves 67 and 69 formed in the rails 59' and 68 respectively. The can tops will thus be advanced with the wheel 56 directly 856117

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above the cans in the pockets 58 and will be spaced therefrom by reason of the can-tops being supported on the rails 59' and 68 above the outer edge of the wheel 56, and above the top of the cans; the cans -d- being supported on an upwardly in-
clined rail 74 extending beneath the outer edge of the wheel 56 on the path of travel of the cans carried by the latter, and terminating at its lower end adjacent the table 54. The can-tops are thus supported clear of the contents of the cans which, frequently project above the upper edges of the cans, the cans, however, being gradually moved upward toward the can-top as it is advanced along the upwardly inclined can supporting rail 74 until the can and the top therefor are discharged from engagement with the wheel 56, as will presently be described.

Rigidly mounted on the shaft 42 is a collar 75 on which a series of four radiating brackets 76 are formed and on the outer ends of which brackets sleeves 77 are mounted, which sleeves form guides for vertically reciprocal stems 78, the lower ends of which are fitted with rollers 79 extending into a cam groove 80 formed on an annular flange 81 formed on the base 25 and encircling the shaft 42 concentric therewith. Each of the stems 78 is formed with an internally threaded bore 82 to receive a threaded stud 83 adapted to be adjusted vertically in relation to the stem and on which stud rotably

- a collar 84 is A rigidly mounted. The collar 84 is 85
- formed with an annular flange Λ intermediate its forming a chuck

ends and has a disk 86 Λ on its upper end; the disk 86 being formed with an annularly depending flange 87 adapted to slidably engage the

upper end of the collar 84. Depending bolts 88 on the disk 86 pass through apertures in the flange 85 and are formed with heads 89 which are adapted to engage the underside of the flange 85 2

to limit the upward movement of the disk 86. A D' A coiled spring 90 is interposed between the disk 86 and the flange 85 to normally maintain the disk 86 in its uppermost position and to provide a resilient seat therefor. The upper faces of the disks 86 are arranged on a plane with the upper end of the inclined rail 74 which terminates adjacent the path of travel of the outer edges of the 856117

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disks 86 as the latter are advanced on the rotation of the shaft 42.

Rigidly mounted on the upper end of the shaft 42 is a cross head 91 comprising a series of radiating arms carrying sleeves 92 in which vertical tubular spindles 93 are revolubly mounted. A series of four of these spindles 93 and their bearings 92 are provided and on the lower end of each spindle 93 is a pinion 94 which meshes with a fixed gear 95 rigidly mounted on the bearing 49. Mounted on the underside of each pinion 94 and secured to the spindle 93 is a disk 96 which is formed with an outwardly extending flange 97 on its outer edge to receive a ring 98 which is slidable on the flange

 \mathbf{D}''

97 and is normally disposed concentric with the disk 96 and the spindle 93 by means of a spring pressed ball 99 adapted to seat in an annular channel 100 formed on the upper face of the ring 98; a socket 101 being formed in the pinion 94 to receive the ball 99 and a pair of washers 103 between which a spring 103 is interposed.

A set screw 104 is mounted in the pinion 94 and bears against the upper washer 102 and is adapted to be adjusted so as to vary the tension of the spring 103.

The ring 98 is formed with an annular groove 105 on an offset portion of its inner wall, the lower edge of which groove is formed by a flange 106 having an outwardly diverging lower face. This ring 98 constitutes an initial seaming device and is designed to be normally disposed immediately above the can receiving disk 86 so as to engage the top of the can supported on the disk 86, as particularly shown in Fig. 10; a seaming ring 98 being positioned over each of the disks 86. The disk 96 is adapted to engage the top -a- of the can as particularly shown in Figs. 12 and 13, and operates to rotate the can when the gear 94 is revolved by being carried around the stationary gear 45 on the rotation of the shaft 42.

The rings 98 are adapted to be actuated on the rotating of the cross head 91 to engage the flanges -c- on the can covers -a- and turn a lip -e- on the 856117

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flange -c- beneath an annular flange -f- on the top of the can, as shown in Figs. 14 and 15. The actuation of the rings 98 is effected by means of a cam disk 107 rigidly mounted on the underside of the stationary gear 95; the cam disk 107 having an arcuate face eccentric to the center of the shaft 42 on which the outer faces of the seaming rings 98 are adapted to bear, when performing the seam forming operation and having a concentric arcuate face which engages the rings as the gears 94 are rotated to position the rings concentric with the gears 94. When thus disposed they are engaged by the centering balls 99 so that the rings will be positioned concentric with the cans when the latter are fed to the disks 86 from the can feeding wheel The disks 86 and the cross head 91 form a 56. carriage for advancing the cans, which on being carried around by the rotation of the shaft 42 receive the initial seaming operation just described and as shown in Figs. 14 and 15, and are then subjected to a second operation, being delivered from the can receiving disks 86 to a platform 108 by means of an arm 109 mounted on the shaft 40; the arm 109 having a semi-circular end portion 109' adapted to engage the cans on the disks 86 and remove them from the latter. In order to permit the removal of the cans from the disks 86 the latter are moved downwardly by the action of the cam groove 80 on the flange 81 which allows the stems 78 to gravitate downward and withdraw the upper

end of the cans on the disks 86 clear of the seaming ring 98.

The can engaged by the arm 109 is advanced over the platform 108 and is delivered to a disk 110 reciprocably rotably mounted on a stud 112 Λ mounted on a collar 111 Λ carried by a threaded stem 112 on a reciprocal stem 113 having a roller 114 on its lower end engaged in a cam groove 115 on a flange 116 carried by the base 25 and formed concentric with the shaft 33. A series of four of the disks 110 and their mountings are provided and the stems 113 are slidably engaged by sleeves 117 carried on brackets 118 secured to the tubular shaft 33.

Mounted on the upper end of the tubular shaft 33 is a cross head 119 having a series of sleeves 9 856117

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120 forming bearings for tubular spindles 121 on the lower ends of which disks 122 are rigidly mounted; a disk 122 being disposed above each of the can receiving disks 110 and adapted to engage the tops of the cans delivered to the disks 110. The tubular shafts 121 are provided with gears 123 which mesh with a large gear 124 mounted on the shaft 36 extending through the tubular shaft 33. The shafts 33 and 36 are designed to be rotated in opposite directions so that the speed of rotation of the spindles 121 will be increased without the

use of an excessively large gear 124 or reduced pinions 123.

The cans carried around by the disks 110 and 122 are designed to be subjected to the action of ordicompressing

> nary double seaming A rollers 125 formed with annular grooves 126 thereon adapted to engage the seams on the upper edges of the cams as shown compressing

"" in Fig. 19. The double seaming A rollers 125 are mounted upon bell crank lever arms 127 pivoted at 128 to the cross head 119; the bell crank arms 127 being provided with wheels 129 adapted to traverse a cam disk 130 rigidly mounted on the bearing 47; the cam disk 130 having an eccentric cam face by which the bell crank arms 127 are rocked to graducompressing

er C ally increase the pressure of the can seaming A rollers 125 on the can seam and crowd the seam against the disk 122 as the can is rapidly revolved by the latter, and thereby complete the seaming operation.

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The can A on being subjected to the action of the compressing

seaming A rollers 125 are ejected from the disks 110 by means of arms 131 mounted on the shaft 38 and adapted to engage the can bodies and shove them off the can supporting disks 110 onto a suitable conveyor, not shown; the disks 110 moving into a lower position when the cans are engaged by the arms 131 so as to move the heads of the cans clear of the disks 122. The downward movement of the disks 110 is effected by the rollers 114 on the stems 113 moving downward in the cam groove 115 on the flange 116.

As a means for insuring the release of the cans from the disk 122 and the disks 96, stems 132 and 133 are mounted in the tubular shafts 121 and 93 856117

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respectively; the lower ends of the stems 132 and 133 being formed with shoulders 134 and 135 which are engaged by springs 136 and 137 supported upon inturned flanges on the lower ends of the shafts 121 and 93.

The springs 136 and 137 operate to normally maintain the stems 132 and 133 in an uppermost position with the lower ends of the stems above the lower faces of the disks 122 and 96 and out of contact with the can-top engaged by the disk. These stems 132 and 133 are designed to be depressed in opposition to the springs 136 and 137 to force the cans out of engagement with the disks 122 and 96 the moment the can supporting disks 110 and 86 are lowered by the action of the cam groove 115 and 480 on the rollers 114 and 79. The depression of the stems 132 and 133 is accomplished by means of stationary arms 138 and 139 mounted on standards carried by the base portion 53 which arms project in the path of travel of the upper ends of the

stems 132 and 133 at points immediately above the points where the can supporting disks 110 and 86 are lowered in such manner that the stems 132 and 133 will be engaged by the arms 138 and 139 and thereby be suddenly depressed so as to impact against the head of the can.

The upper ends of the stems 132 and 133 project a short distance above the upper ends of the tubular shaft 121 and 93 and are formed with heads 140 and 141 respectively which have crowned upper faces which are engaged by curved lower faces on the arms 138 and 139.

As a means for permitting a slight relative movement of the arms of the bell crank arms 127 carrying the seaming rollers 125 and the cam engaging wheels 129 to permit the seaming rollers 125 to pass over the joint in the sides of the can body the arms 142 carrying the wheels 129 are formed of a resilient metal such as steel having sufficient rigidity to insure a proper seaming action of the rollers 125 but which will yield when subjected to the pressure thereon caused by the seaming rollers 125 passing over the can seam. To permit adjustment of the rollers 125 and the wheels 129 in relation to each 11 856117

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other to accommodate them to cans of different diameters the arms carrying the rollers 125 are constructed to be adjusted to various angles in relation to the arms 142. To effect this adjustment, said arms are mounted separately on the pivot pins

128 and are formed with overlapping flanges 143 adapted to be secured together with the arms in a desired angular position in relation to each other by means of pins 144 extending through an aperture in the uppermost flange and adapted to engage any one of a series of apertures 145 formed in the lowermost flange on an arc of a circle concentric with the pivot pin 128.

In the operation of the invention, the drive shaft 26 is rotated continuously from any suitable source of power, thus effecting a continuous rotation of the shafts 33, 36, 38, 40, 42, 45 and 46 through the medium of the gears 29, 30, 31, 32, 34, 35, 37, 39, 41, 43 and 44, which are rotated in the directions indicated by the arrows in Fig. 5. This effects a continuous rotation of the arms 55 on the shaft 46, can feeding wheel 56 and shaft 45, the brackets 76 and cross head 91 on the shaft 42 carrying the primary seam forming mechanism, the arms 109 on the shaft 40, the brackets 118 and cross head 119 on the tubular shaft 33 carrying the final seaming mechanism, the gear 124 on the shaft 36 for accellerating the gears 123, and the arms 131 on the shaft 38.

It will now be seen that a can fed to the arms 55 will be advanced continuously during its travel through the machine and by reason of no intermittent movement of the can or the rotating parts conveying same that the can may be passed through the machine and subjected to the heading action thereof at a high speed, thus producing a machine that is capable of a rapid output. The operations on the can are as follows: On its being engaged by the arms 55 it is advanced into 12 856117

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a pocket 58 on the wheel 56 and carried around by the latter into the passage inside of the guide rail 59. The body of the can on striking the arm 70 rocks the latter on its pivot 71 and moves the plate 64 from beneath a can-top -a- so that the forward edge of the latter will drop as before described into the path of travel of the finger 73 on the wheel 56 at the rear edge of the pocket 58 carrying the can. The finger 73 will then carry the can-top -a- into the grooves 67 and 69 on the rails 59' and 68 with the can-top positioned directly above the can.

The can is supported on the inclined rail 74 and is moved by the wheel 56 into position over a can supporting disk 86 which is moved beneath the can by the rotation of the shaft 42 at a speed corresponding to that of the can; the can and the disk 86 registering coincidently when alined between the shafts 42 and 45. The disk 86 is then elevated by the action of the cam groove 80 on the roller 79, thereby causing the disk 86 to engage the lower end of the can and raise it into engagement with the can-top thereabove; the movement of the disk 86 being sufficient to carry the can-top into engagement with the disk 96. Sufficient pressure is exerted on the can between the disk 86 and the disk 96 that the rotation of the latter will operate to spin the can as it is advanced with the disk 86 and carried

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out of the pocket 58 on the wheel 56. While the can is being thus spun the seam forming ring 98 will be actuated by the cam 107 and moved into engagement with the lip -e- and flange -c- on the cantop so as to bend the lip -c- beneath the flange -fon the upper edge of the can body as shown in Fig. The can will then be discharged from the 15. 86

disk Λ 36 as before described and conveyed by the rotating arms 109 onto a disk 110 where it is engaged by the rapidly rotating disk 122 and spun whilst being advanced by the rotation of the shaft 33. The seaming roller 125 will then be caused to press against the seam between the can-top and can 856117

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body by the action of the cam 130 as previously described, during a partial revolution of the shaft 33; the can being spun rapidly a number of revolutions during this action. On completion of this operation the can will be ejected from the disk 110 by the arm 131, as before described, with the can-top effectively secured thereto.

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What we claim is:

<u>-1. In-a-can heading machine, a continuously/re-</u>voluble can conveying carriage, means on said carencircling and

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D riage for A forming a double seam between a can top and can body carried thereon, a second continuously revoluble can conveying carriage, means on said second carriage for rolling the seam formed on the first carriage, and means for automatically passing the can from the first carriage to the second carriage.

2. In a can heading machine, a pair of continuously revoluble can conveying carriages, means for delivering cans and can-tops coincidently to one of encircling and

said carriages, means Λ operating on the can and can-top on the last named carriage, whereby the can-top and can are joined by a double seam, means for delivering the cans from one carriage to the other, and means on the other carriage for rolling the seam between the can-top and can body whilst and means on each said carriage forrevolving the can in rotation thereto. being-advanced by-the-said carriage Λ .

" C

3. 1. In a can heading machine, a continuously revoluble member, a series of spindles thereon, disks on said spindles, means for rotating the spindles by the rotation of the revoluble member, means for clamping a can-top and can against each of the

per A

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per D

per A

per D

per C

disks to cause the cans to rotate as they are adencircling and

vanced by the revoluble member, means Λ forming e

a seam between the can-top and can whilst it is being advanced a partial revolution of the revoluble member, means for automatically removing the can from the revoluble member, continuous can advancing means adapted to receive the cans from said removing means, and means for rolling the seam between the can-top and can while it is being advanced continuously.

4. In a can heading machine, a pair of continuously revoluble can conveying members, means for feeding cantops and cans continuously to one of encircling and

said members, means for Λ connecting the can-tops to the cans during a partial revolution of the revoluble-member, means for transferring-the cans 15 856117

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continuously from one revoluble member to the other, and means actuated by the other revoluble member for rolling the seams between the can tops and cans.

5. In a can heading machine, a pair of continuously revoluble carriages, vertically reciprocal can supporting means thereon, means for delivering can tops and cans continuously to the can supporting means on-one-of-said carriages, means for deliver-

means for rotating the cans on said (carriages) in relataion thereto ing the cans from one carriage to the other Λ and operable the cans means controlled Λ by the rotation of Λ said carriages for forming a double seam between the cantops and cans.

2. 6. 4. In a can heading machine, a revoluble carriage, vertically reciprocal can supporting means on said carriage, means for coincidently delivering can-tops and cans to the can supporting means while

encircling the can top the carriage is rotating, means A for forming seams e

between the can tops and cans whilst they are advancing on a partial revolution of the carriage, a second revoluble carriage, means for supporting cans on said second carriage, means for transferring the cans from the supporting means on one carriage to the supporting means on the other carriage, and means controlled by the rotation of the second carriage for rolling the seam formed between the can-tops and cans on the first carriage.

3. 7. 5. In a can heading machine, a pair of revoluble shafts, means for rotating said shafts continuously, a series of sleeves carried by each of said shafts, stems reciprocally mounted in said sleeves, means for reciprocating said stems on the rotation of the shafts, can supporting means carried by said stems, cross heads carried by said shafts, spindles revoluble mounted in said cross heads in alinement encircling and

with the reciprocal stems, can-top Λ engaging disks

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on said spindles, means for delivering can-tops and cans continuously between the supporting means and the disks carried by one of said shafts, means on said disks

 $\begin{array}{c} \Lambda \ \text{for forming seams between the can-tops and cans} \\ \text{as they are advanced by a partial revolution of said} \\ 16 \\ 856117 \end{array}$

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last named shaft, means for automatically transposing the cans from the supporting means carried by one shaft to the supporting means carried by the other shaft, and means controlled by the rotation of the second shaft for rolling the seams between the can-tops and cans.

<u>-8.6. In a can heading machine, feeding device</u> for delivering cans and can-tops coincidently to a seaming mechanism comprising a continuously revoluble wheel formed with can receiving depressions on its periphery, a rack adapted to receive a stack of can-tops, a pair of curved rails arranged above the wheel on each side of the edge thereof, means controlled by a can being advanced by the wheel for a finger

delivering a can-top to the groved rails, and Λ means on the wheel for engaging the delivered can-top and conveying it on the rails directly above the can carried by the wheel.

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9. In a can heading machine, the combination of a vertically extending shaft, a cross head on said shaft, a series of spindles carried on said cross head, pinions on said-spindles, a stationary-gear with which said pinions intermesh, seam forming means carried by said pinions, a series of vertically reciprocal can supporting means carried by said shaft and arranged beneath the seam forming means, means for rotating the shaft continuously, means for feeding cans and can-tops to the can supporting means whilst the latter are being advanced by rotation of the shaft, means for reciprocating the can supporting means whilst the latter is advanced to move the cans thereon in and out of engagement with the seam forming means during a partial revolution of the shaft, and means for automatically removing the cans from the supporting means.

10. In a can heading machine, a vertically extending shaft, means for rotating said shaft continuously, a cross head on said shaft, a series of vertical spindles carried on said cross head, pinions on said spindles, a stationary gear with which said pinions intermesh, seam forming means on said pinions, can supporting means carried by said shaft

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and arranged beneath the seam forming means, means for feeding cans and can-tops to the can supporting means whilst the latter are advancing, means for reciprocating the can supporting means to move the cans thereon in and out of engagement with the seam forming means during a partial revolution of the shaft, comprising stems carrying the can supporting-means, and a cam encircling the shaft

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adapted to engage and reciprocate said stems, and means for automatically removing the cans from the supporting means.

11. In a can heading machine, the combination of a pair of parallel vertically extending shafts, a cross head on each of said shafts, a series of spindles carried on said cross head; pinions on said spindles, gears with which said pinions intermesh, seam forming devices carried on one set of the pinions; seam rolling means comprising disks on the spindles carrying the other set of pinions, and rollers on the cross head carrying the last named spindles; vertidisk

cally reciprocal can supporting A means mounted on each of the shafts, means for rotating said shafts continuously, means for feeding can tops and cans to the supporting disk on one shaft, means for automatically transferring the cans from said supporting disks to the other supporting disks whilst the shafts are rotating and said disks are being advanced, and means operating on both sets of supporting disks, whereby the latter are reciprocated to move the cans thereon in and out of operative connection with the seam forming and rolling devices during a partial revolution of the shafts.

4. 12.7. In a can heading machine, a pair of parallel vertically extending shafts one of which is tubular, means for rotating said shafts continuously in corresponding directions, a third shaft extending through the tubular shaft adapted to be rotated in a reverse direction in relation to said tubular shaft, a gear mounted on the third shaft, a cross head on

the tubular shaft, a series of spindles on said cross head, pinions on said spindles meshing with the 18

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gear on the third shaft, can top engaging means on said spindles, seam rolling means carried by said cross head coöperating with the can top engaging means to roll the seams between the can tops and can bodies as they are spun by the rotation of said spindles during a partial revolution of the tubular shaft, means for supporting the cans to position the tops in operative relation to the seam rolling means, means on the other shaft for forming a seam between the can top and can body during a partial revolution of the shaft and while it is in motion, and means for transferring the cans from the seam forming means to the seam rolling means.

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Cls 5–18

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In witness that we claim the foregoing we have hereunto subscribed my name this 1st day of July, 1914.

RAY O. WILSON, ARTHUR D. SUMNER,

Inventor.

Witnesses:

T. E. MONTEVERDE, MARGUERITE BATES.

OATH.

State of California, County of Los Angeles,—ss.

ARTHUR D. SUMNER and RAY O. WILSON, the above-named petitioners, being duly sworn, deposes and says that they are citizens of the United States and residents of Los Angeles, in the County of Los Angeles, State of California, and that they verily believes themselves to be the original, first, and joint inventors of the improvements in

CAN HEADING MACHINES.

described and claimed in the annexed specifications; that they do not know and do not believe that the same was ever known or used before their invention or discovery thereof; or patented or described in any printed publication in any country before their invention or discovery thereof, or more than two years prior to this application, or in public use or on sale in the United States for more than two years prior to this application: that said invention has not been patented to them or to others with their knowledge or consent in this or any foreign country for more than two years prior to this application, or on an application for a patent filed in any country foreign to the United States by them or their legal representatives or assigns more than twelve months prior to their application; and that no application for patent on said improvement has been filed by them or their

representatives or assigns in any country foreign to the United States.

(Applicant sign here) and RAY O. WILSON. ARTHUR D. SUMNER.

Impression seal here.

Sworn and subscribed to before me this 1st day of July, 1914.

(Signature of officer administering oath)

MARIE BATTEY,

Notary Public in and for the County of Los Angeles, State of California.

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	Washington, D. C.,"					
and	not	any	offic	ial	by	name.

Paper No. 2

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

DEPARTMENT OF THE INTERIOR.

UNITED STATES PATENT OFFICE.

I. L. T.

Washington.

February 13, 1915.

Hazard & Strause,

639 Citizens' Nat'l Bank Bldg.,

Los Angeles, Calif.

Please find below a communication from the Ex-AMINER in charge of the application of Wilson & Sumner; Serial No. 856,117; filed August 10, 1914; for Can Heading Machines.

THOMAS EWING,

Commissioner of Patents.

This case has been examined.

As too long a time has elapsed between the execution of the oath and the filing of this case, a new oath is required.

Claims 1, 3, 4, 5, and 6 are rejected on 813,482, February 27, 1906, Brenzinger, Class 113–24, in view of 858,785, July 2, 1907, Black, Class 113–14.

Claims 2 and 7 are rejected on the same references as claims 1 etc., taken with 1,104,751, July 21, 1914, Wegner, Class 113–14.

Claim 8 is rejected on 1,074,325, September 30, 1913, Johnson, Class 113–14.

Claims 9, 10, 11 and 12 are rejected on the same references as Claims 1 etc., taken with 492,076, February 21, 1893, Walsh, Class 113-14.

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L. W. MAXSON, Examiner. 856117 22 Serial No. 856,117

Paper No. 3

Pow. of Atty.,

REVOCATION OF POWER OF ATTORNEY. To the Commissioner of Patents:

The undersigned having, on or about the 1st day of August, 1914, appointed Hazard and Strause, of Los Angeles, in the County of Los Angeles and State of California, his attorney to prosecute an application for letters patent, which application was filed on or about the 10th day of August, 1914, for an improvement in

CAN HEADING MACHINES—S. N. 856117, hereby revokes the power of attorney then given, and appoints R. S. Berry of 506 Central Building, Los Angeles, in the county of Los Angeles and State of California, and whose register number is 8111, his attorney, with full power of substitution and revocation, to prosecute said application, to make alterations and amendments therein, to receive the patent, and to transact all business in the Patent Office connected therewith.

Signed at Los Angeles, in the county of Los Angeles, State of California, this 23d day of February, 1915.

ARTHUR D. SUMNER, RAY O. WILSON,

[Twenty-five Cents U. S. Internal Revenue Stamp attached.]

> 856117 23

U. S. Patent Office. June 15, 1915. Division 14. Serial No. 856,117. Paper No. 4. Amend't A & New Oath. Los Angeles, California, June 7, 1915. Div. 14, Room 309. Wilson & Sumner, CAN HEADING MACHINES.

Serial No. 856,117.

Filed August 10, 1914.

Commissioner of Patents,

Washington, D. C.

Sir:

In response to the office action of February 13, 1915.

Insert encircling and as follows:

Claim 1 line 2 before "forming"; claim 2 line 3 before "operating"; claim 3 line 6 before "forming"; claim 4 line 3 before "connecting"; claim 7 line 7 after "can top."

Claim 5 line 5 after "other" insert means for rotating the cans on said carriages in relation thereto.

Change "controlled" to operable.

Line 6 erase "said carriages" and insert the cans.

Claim 6 line 4 before "for" insert encircling the can top.

Claim 8 line 7 erase "means" and insert a finger. Reconsider claims 9-12, inclusive.

Insert the following claims:

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Paper No. 3.

5.8.13. In a can heading machine, a continuously revoluble can conveying carriage, means movable with said carriage adapted to encircle and form a double seam betwen a can top and can body, means for spinning the can when encircled by the seaming means, a second continuously revoluble can conveying carriage, means on said second carriage for rolling the seam formed on the first carriage, and means for automatically passing the can from the first carriage to the second carriage.

9.6.14. In a can heading machine, a continuously revoluble can conveying carriage, means movable with said carriage adapted to encircle and form a double seam between a can top and can body, means for spinning the can when encircled by the seaming means, a second continuously revoluble can conveying carriage, means on said second carriage for rolling the seam formed on the first carriage, means for spinning the can during the seam

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S. N. 856,117.

rolling operation, and means for automatically passing the can from the first carriage to the second carriage.

10.7.15. In a can heading machine, a pair of

rotary carriages, means for delivering cans and can tops continuously to one of said carriages, means on said last named carriage for encircling the can tops and cans to form a double seam, means for spinning the can and can top cooperating with said last named means, whereby the double seam is formed while the can is being advanced, means for conveying the can from one carriage to the other, seam rolling means on the other carriage, and means for spinning the cans to effect the seam rolling operation while the cans are being advanced.

11.8.16. In a can heading machine, a vertical shaft, a plurality of revoluble can supporting disks carried by said shaft, a stationary gear encircling said shaft, a series of pinions meshing with said gear and carried by said shaft in vertical axial alinement with the can supporting disks, means on said pinions adapted to encircle a can top and can carried on the supporting disk therebeneath to form a double seam between the can top and can body, and a stationary cam for cooperating with said last named means on the rotation of the shaft and the pinions to form a double seam.

12.9.17. In a can heading machine, a vertical shaft, a plurality of revoluble can supporting disks M. carried by said shaft, a stationary gear gear encircling said shaft, a series of pinions meshing with said gear and carried by said shaft in vertical axial alinement with the can supporting disks, means on said pinions adapted to encircle a can top and can carried on the supporting disk therebeneath to form a double seam between the can top and can

body, a stationary cam for cooperating with said last named means on the rotation of the shaft and the pinions to form a double seam, a second shaft, (2)

> 856117 25 7678. Paper No. 3. June 7, 1915

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revoluble can supporting means thereon, means for delivering the cans from the can supporting disks to the last named can supporting means, means for rotating the cans on their supporting means, and spring pressed rollers engageable with the double seam adapted to roll the latter on rotation of the last named shaft.

13. 10. 18. In a can heading machine, a vertical rotary shaft, a plurality of revoluble can supporting disks carried thereby, a series of spindles arranged in vertical alinement with the centers of said disks, bearings on said shaft in which said spindles are revolubly mounted, disks on said spindles opposite the can supporting disks, means for reciprocating the can supporting disks to clamp cans and can tops against the disks on the spindles, pinions on said spindles, a stationary gear concentric with the shaft engaging said pinions whereby the cans are spun on rotation of the shaft while advancing, and means on said pinions arranged to encircle the can top to form a double seam between the can top and can body.

14.11.19. In a can heading machine, a vertical rotary shaft, a plurality of revoluble can supporting disks carried thereby, a series of spindles arranged in vertical alinement with the centers of said disks, bearings on said shaft in which said spindles are revolubly mounted, disks on said spindles opposite the can supporting disks, means for reciprocating the can supporting disks to clamp cans and can tops against the disks on the spindles, pinions on said spindles, a stationary gear concentric with the shaft engaging said pinions whereby the cans are spun on rotation of the shaft while advancing, means on said pinions arranged to encircle the can tops to form a double seam between the can top and can body, comprising diametrically slidable seaming rings, and a stationary cam arranged to shift said rings as the cans are advanced.

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15.20.12. In a can heading machine, a pair of revoluble shafts, a plurality of resiliently supported revoluble can supporting disks carried by each of said shafts, revoluble spindles carried by each of said shafts in vertical alinement with the axes of said disks, can top engaging disks on said spindles, means whereby the rotation of said shafts will rotate said

spindles and thereby spin cans carried by the supporting disks, means controlled by the spindles carried by one of the shafts for forming a double seam between the can tops and can bodies, means cooperating with the disks on the spindles carried by the other shaft for rolling the seams, means for rotating the shafts continuously in unison, and means for transferring the cans from one set of disks to the other set of disks.

16. 21. 13. In a can heading machine, means for clamping a can body and can top together, means for advancing the can and can top while clamped, means for rotating the clamping means while advancing to spin the can and can top, and means circling the can top for forming a double seam while while the can and top are spinning and advancing.

17.22.14. In a can heading machine, means for clamping a can body and can top together, means for advancing the can and can top while clamped, means for rotating the clamping means while advancing to spin the can and can top, means encircling the can top for forming a double seam while the can is spinning and advancing, means for automatically removing the can and can top from the clamping means, and means for thereafter rolling the double seam while the can is being advanced.

18.23.15. In a can heading machine, means for clamping a can body and can top together, comprising a can top engaging disk and a resiliently mounted vertically reciprocal can supporting disk, means for advancing the clamping means, means

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vs. Ray O. Wilson et al.

for rotating the can top engaging disk to spin a
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can while advancing, and means encircling the can top for forming a double seam while the can is spinning and advancing.

19.24.16. In a can heading machine, means for clamping a can body and can top together, comprising a can top engaging disk and a resiliently mounted vertically reciprocal can supporting disk, means for advancing the clamping means, means for rotating the can top engaging disk to spin a can while advancing, means encircling the can top for forming a double seam while the can is spinning and advancing, means for automatically removing the can from between the disks, and means for thereafter rolling the double seam thereon while the can is advancing.

20.25.17. In a can heading machine, means for clamping a can body and can top together, comprising a can top engaging disk and a resiliently mounted vertically reciprocal can supporting disk, means for advancing the clamping means, means for rotating the can top engaging disk to spin a can while advancing, comprising a spindle on which the disk is mounted, a pinion on said spindle, and a

stationary gear meshing with said pinion around which the latter is advanced, and means encircling the can top for forming a double seam while the can is spinning and advancing.

26. In a can heading machine, a vertical revoluble shaft, a guide bearing carried thereby, a vertical stem slidably carried in said bearing, means for reciprocating said stem as the shaft is rotated, a revoluble can supporting disk reciprocally mounted in relation to said stem, a can top engaging disk spaced from the can supporting disk, and means for rotating the can top engaging disk as the shaft revolves to spin a can and can top interposed between the disks.

21. 18. 27. 26. In a can heading machine, a vertical revoluble shaft, a guide bearing carried thereby, a vertical stem slidably carried in said bearing, (5)

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means for reciprocating said stem as the shaft is rotated, a revoluble can supporting disk reciprocally mounted in relation to said stem, a can top engaging disk spaced from the can supporting disk, means for rotating the can top engaging disk as the shaft revolves to spin a can and can top interposed between the disks, and means carried by the can top engaging disk encircling the can top for form-

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ing a double seam between the can top and can body as the latter is spun while the shaft is rotated.

<u>28.27. In a can heading machine, a vertical revoluble shaft, a guide bearing carried thereby, a vertical stem slidably mounted in said bearing, means for reciprocating said stem as the shaft is rotated, a disk revolubly and reciprocally mounted in relation to said stem, a spring forming a yield-able support for said disk, a can top engaging disk spaced from the can supporting disk, and means for rotating the can top engaging disk while the shaft is revolving to spin a can and can top interposed between the disks.</u>

29. In a can heading machine, a vertical revoluble shaft, a guide bearing carried thereby, a vertical stem slidably mounted in said bearing, means for reciprocating said stem as the shaft is rotated, a disk revolubly and reciprocally mounted in relation to said stem, a spring forming a yieldable support for said disk, a can top engaging disk spaced from the can supporting disk, means for rotating the can top engaging disk while the shaft is revolving to spin a can and can top interposed between the disks, and means encircling the can top for forming a double seam while the can is being spun and advanced.

23. 30. 28. In a can heading machine, a mechanism for delivering cans and can tops coincidently to a seaming mechanism, comprising a horizontal wheel formed with can receiving depressions on-its periphery, a rack-adapted to receive a stack of can tops, a pivoted blade forming a support for the can tops, means operable by a can in the wheel (6)

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for rocking the blade to release a can top, and a finger on the wheel for engaging the released can top and moving it from beneath the stack.

In a can heading machine, a mechanism

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Insert C⁵ Per D for delivering cans and can tops coincidently to a seaming mechanism, comprising a horizontal wheel formed with can receiving depressions on its periphery, a rack adapted to receive a stack of can tops, a pivoted blade forming a support for the can tops, means operable by a can in the wheel for rocking the blade to release a can top, a finger on the wheel for engaging the released can top and moving it from beneath the stack, and means for restoring the pivoted blade beneath the stack above the released can top before the latter is engaged by the finger. C^5

Remarks:

Claims 1–8 inclusive have been amended to differentiate them from the references of record which is effected by specifying the seaming mechanism in Claims 1–4 and 6 and 7 as "encircling" the can tops, by amending Claim 5 to include "means for rotating the cans," and specifying "the finger" on the wheel for engaging delivered can tops in Claim 8.

Reconsideration of Claims 9-12 inclusive is requested.

None of the references disclose the combination of mechanisms now set forth in the claims originally submitted or those filed herewith, that is, means for advancing the can continuously, means for spinning the can while advancing, means encircling the can top cooperating with the can spina double

ning means for forming A seam between the $\operatorname{can}_{\mathrm{H. B. \& M.}}$ top and can body with secondary mechanism for rolling the formed seam without stop and start movement of the can.

The patent to Brenzinger shows a can heading machine thru which the cans pass with intermittent movement and in which the can is held against rotation during the seaming action.

The patent to Black, whilst disclosing a machine in which continuous advance movement of the can

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therethru is effected, the can is held against rotation during the seaming operation, futhermore no means are provided on the first revoluble can conveying carriage for forming a double seam. To substitute the initial can seaming mechanism or

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Brenzinger for the can flanging mechanism or Black or vice versa would not supply an anticipation of the claims as such change would render both machines inoperative.

The patent to Wagner, whilst disclosing a mechanism whereby the can is turned in forming the seam and is advanced continuously thru the machine, the seaming mechanism does not "encircle" the can head as in applicants' device.

The patent to Walsh shows a mechanism for double seaming the can which encircles the can top but does not show the can advancing and spinning mechanism claimed.

To substitute any of the devices in the references for parts of the applicants' mechanism would not supply a machine capable of the results obtained by the present machine, neither would the joining the mechanism of the references result in a machine corresponding to that of the applicants'. The feature of the applicants' machine whereby the cans are rotated while advancing continuously increases the rapidity with which the cans can be successfully headed; this machine being capable of an output of one hundred fifty cans per minute, which is greater than is practical with machines employing an intermittent movement or those in which the cans are held stationary whilst the seaming rollers are operating thereon, as is the case in Brenzinger and Black.

The reference to Brenzinger as a foundation for rejecting the claims is not clear in as much as no rotating carriages by which the cans are advanced continuously is shown; the rotary member thereof being revolved axially of the can while the latter is stationary. The applicants were aware of this construction and operation and considered it objec-(8)

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June 7, 1915

tionable because of slow output and devised their present machine to overcome this and other objections in machines of the Brenzinger type.

In view of the foregoing it is believed the claims originally submitted, together with those filed herewith, will now be allowed.

Very respectfully,

R. S. BERRY, Atty. for Appellants. (9) 856117 L. 32 Itent Office. 7685.

HSB L.

U. S. Patent Office. Jun. 15, 1915.

Division 14.

Serial No. 856,117. Paper No. 4. New Oath.

OATH.

State of California,

County of Los Angeles,-ss.

Arthur D. Sumner and Ray O. Wilson, the above named petitioners, being duly sworn, depose and

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say that they are citizens of the United States and residents of Los Angeles, in the County of Los Angeles, State of California, and that they verily believe themselves to be the original, first and joint inventors of the improvements in CAN HEADING MACHINES described and claimed in the annexed specification; that they do not know and do not believe that the same was ever known or used before their invention or discovery thereof; or patented or described in any printed publication in any country before their invention or discovery thereof, or more than two years prior to this application, or in public use or on sale in the United States for more than two years prior to this application; that said invention has not been patented to them or to others with their knowledge or consent in this or any foreign country for more than two years prior to this application, or on an application for a patent filed in any country foreign to the United States by them or their legal representatives or assigns more than twelve months prior to their application; and that no application for patent on said improvement has been filed by them or their representatives or assigns in any country foreign to the United States.

> ARTHUR D. SUMNER. RAY O. WILSON.
Sworn and subscribed to before me this 5th day of April, 1915.

[Seal] JOSIAH L. GELLER, Notary Public in and for the County of Los Angeles,

State of California.

My Commission Expires March 11, 1919.

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Div. 14. Room 309 Address only "The Commissioner of Patents, Washington, D. C.," and not any official by name.

Paper No. 5.

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

U. S. Patent Office. Jun. 30, 1915.

Mailed.

DEPARTMENT OF THE INTERIOR, UNITED STATES PATENT OFFICE, Washington.

ILT.

June 30, 1915.

R. S. Berry,

506 Central Bldg.,

Los Angeles, Calif.

Please find below communication from the EX-AMINER in charge of the application of Wilson & Sumner; Serial No. 856,117; filed August 10, 1914; for Can Heading Machines.

THOMAS EWING,

Commissioner of Patents.

This case has been examined as amended June 17, 1915.

Claim 1 is rejected on reference to Brenzinger taken with Black, both of record. As disclosed by Black, it is old to perform the seaming and compressing operations by means of tools mounted upon a single capping head. Brenzinger shows that it is old to separate these tools so as to perform the operations thereby at two distinct stations. In view of this, there is no invention in mounting a tool for double seaming a can cap to a can body on a turret, as shown by Black, and then feeding the can body from that turret to a similar one upon which the compressing operation is performed by another tool.

Claims 2 and 4 are rejected on the same references as claim 1, taken with Johnson of record. Johnson shows means for feeding can bodies and caps simultaneously to the operating machine. In view of this, there is no invention in providing any and

type of seaming machine with can body Λ cap feeding means, as disclosed by Johnson.

Claims 3, 5, 13, 14, 15, 18 to 25 inclusive, 27 and 29 are rejected on the ground that they are in-856177

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accurate. In these claims it is stated that the No. 856,117, Page 2. 121 cans are spun or rotated during the operating of forming the double seam. As disclosed, the seaming means is rotated while the can body is held stationary between the chucks. Claim 7 is rejected on the ground that the same means is covered twice, namely, the can top encircling and engaging disks on said spindles, and the means for forming seams between the can tops and the cans as they are advanced.

Claims 9 and 16 are rejected on Black of record, alone or taken with

770,803, September 27, 1904, Gillette, Class 113-5. The Gillette patent shows a stationary gear by means of which the seaming tools are caused to rotate on their axes during their movement around the stationary gear.

Claim 10 is rejected on the same references as claims 9 etc., taken with Wegner of record.

Claim 11 is rejected on the ground that it is vague and indefinite and incomplete. There is no antecedent for the term "supporting disks" in line 5.

Claim 26 is rejected on reference to Wegner of record.

Claim 28 is rejected on reference to Wegner of record, taken with

747,671, December 22, 1903, Adriance, Class 113–19.
Claims 12, 17, 30 and 31 are deemed allowable.
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L. A. MAXSON, Examiner. 856117 35 Serial No. 856,117. Paper No. 6 Amendment B.

Mail Room.

Jul. 29

1915

U. S. Patent Office.

Paper No. 6.

Los Angeles, California, July 23, 1915.

Div. 14, Room 309.

Wilson & Sumner.

CAN HEADING MACHINE.

Serial No. 856,117.

Filing Date, Aug. 10, 1914.

To the Commissioner of Patents, Sir:

In response to Office action of June 30, 1915:

Claim 7, line 10, after "means" insert on said disks.

Claim 11, line 8, change "means" to disks.

Cancel Claims 26 and 29, and re-number the remaining claims in their order.

REMARKS.

Reconsideration of Claim 1 is requested for the following reasons:

The fact that it is old to perform the seaming and compressing operations by means of tools mounted upon a single capping head, and that it is old to separate these tools so as to perform the operations thereby intermittently at two distinct stations, does not anticipate applicant's Claim 1, which is drawn to a construction which calls for a pair of continuously revoluble can conveying carriages and means for forming a double seam on a can while it is being advanced on one carriage and means for rolling the seam while the can is being advanced on the other carriage, with means for transferring the can from one carriage to the other. The can is being advanced at all times during its progress through the machine and docs not come to rest at any point. To devise a mechanism to effect this continuous operation certainly requires the exercise of the inventive faculties even though the inventor was aware of the intermittent 856117

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double turret type of machine and the continuous single turret and conceived an arrangement by which the continuous operation of a double turret could be effected and whereby the speed of the output and efficiency could be increased, over either type; this would amount to an improvement of great value and constitute a step in the advance of the art. It is contended that the patents to Black and Brensinger do not anticipate the applicant's structure. Claim 1 cannot be read singly or collectively on these references, which is apparent on a careful analysis of this claim in comparison with the devices of Black and Brensinger. Taking this claim element by element:

1. "A continuously revolving can conveying carriage—" Such a carriage is found in Black, but not in Brensinger.

2. "Means on said carriage for encircling and forming a double seam between a can top and a can body carried thereon—" Such a seam-forming means is not found in the device of Black, as (the seam-forming means of Black does not encircle the can top,) and, furthermore, operates in conjunction with compressing tools upon the single carriage, as conceded by the Examiner. Furthermore, no seam-forming means is shown on a continuously revoluble can conveying carriage in Brensinger.

3. "A second continuously revolving can conveying carriage—" This element is not disclosed in either the reference to Black or to Brensinger and apparently not considered by either. In fact, to make the carriage of Brensinger continuously revoluble would necessitate a complete reconstruction of the machine and alteration of its mode of operation.

4. "Means on said second carriage for rolling a seam formed on the first carriage—" There being no second continuously revolving can conveying carriage in either of these references, its follows that this element does not appear.

> 856117 37

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5. "And means for automatically passing the can from the first carriage to the second carriage—" There being no second continuously revolving can conveying carriage in Black or Brensinger, corresponding to that of the applicant, this last-named element is not equivalent to the can-passing mechanism of Black or Brensinger when considered in combination with the previous elements of the claim. From the foregoing it is manifest that the elements of this claim are a new combination.

The applicant maintains that the intermittent delivery of a can and can top from a seam-forming to a seam-rolling mechanism as shown in Brensinger is not equivalent to the continuous feeding of the can as here claimed. When the applicant specifically states that the object of his invention is to provide a can-heading machine which is continuous in operation, that is, in which the can is conveyed continuously through the machine without stopping and starting movement and the claim is drawn accordingly, it is not understood why the Examiner persists in rejecting the claim on the patent to Brensinger which discloses the very intermittent movement which applicant has succeeded in avoiding.

Reconsideration of Claims 2 and 4 is requested on the above grounds, and, furthermore, because the inclusion of a means for feeding can bodies and can tops simultaneously is an element employed in conjunction with a new combination of elements, and the fact that it had previously been employed with other types of feeding machines, should not operate as a bar to the allowance of these claims when not aggregated by claiming it specifically.

In reference to Claims 3, 5, 13, 14, 15, 18 to 25 inclusive, 27 and 29, the Examiner's attention is called to the statement beginning in line 28, page

8 of the specification, to Fig. 10 of the drawings, and to the statement beginning in line 21, on page 13.

> 856117 38

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In these, it will be seen that the cans are spun, or rotated, during the operation of forming a double seam. This spinning of the can is an important feature of the applicant's invention, as it materially increases its capacity. On reconsideration of these claims, it is believed they will be allowed.

Claims 9 and 10 call for seam-forming means carried by the pinions, in lines 4 and 5, respectively, and Claim 16 calls for "means on said pinions adapted to encircle a can top, etc." It will be noted that such construction is not disclosed in Black, Gillette, or Wagner, cited by the Examiner in rejection thereof. This specific construction characterizes these claims and distinguishes them from these references, and it is thought they should be allowed.

Respectfully submitted.

R. S. BERRY, Atty. for Applicant.

R. S. Berry,

3 . .

506 Central Building,

Los Angeles, California.

856117 39

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2 - 260

Div. 14 Room 309 Address only "The Commissioner of Patents, Washington, D. C.," and not any official by name. Paper No. 7.

All communications respecting this application should give the serial number—date of filing, title of invention, and name of the applicant.

DEPARTMENT OF THE INTERIOR, UNITED STATES PATENT OFFICE, I. L. T.

Washington.

September 18, 1915.

R. S. Berry,

506 Central Bldg.,

Los Angeles, Calif.

Please find below a communication from the EX-AMINER in charge of the application of Wilson & Sumner; Serial No. 856,117; filed August 10, 1914; for Can Heading Machines.

THOMAS EWING,

Commissioner of Patents.

This case has been examined as amended July 29, 1915.

The carrier 56 in Fig 20 is not correctly shown. This figure should be amended to correspond with Fig. 6, that is, the curved line indicating the periphery of the carrier 56, between characters 73 and 58, should be changed to a double line.

The last ten lines on page 5 should be revised because the present description of the cap dropping and separating means is vague. This description should be made to correspond to the description of the members 65 and 66 in lines 13 and 14 of page 6.

"Seaming" should be "seam compressing" in lines 12, 15, 21 and 24 of page 10.

In line 24, same page, "on" should be "after."

Page 11, line 12, "180" should be "80."

In the 5th line from the bottom of page 13, "36" should be "86."

The rejection of claim 1 is reiterated. It is insisted upon that the arrangement claimed by applicant does not amount to invention in view of the 856117

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No. 856,117, Page 2.

art as cited, and issue on this point is taken with the applicant. This claim is also met by 1,096,937, May 19, 1914, Nichols, Class 113–23, and is therefore rejected thereon.

Claims 5 and 11 are rejected on the same references as claim 1, and for the same reasons.

The rejection of claims 2 and 4 is reiterated. These claims are further rejected on Nichols cited.

Claims 1 to 5 inclusive, 7, 9 to 11 inclusive, and 13 to 27 inclusive are rejected on the ground that they are not supported by the present disclosure. In the last paragraph on page 7 it is stated that the collar 84 is rigidly mounted on the stud 83, while the claims state that the lower chuck which comprises the collar 84 is rotatable. It is thought that the description of this collar as being rigidly mounted is inaccurate, and therefore "rigidly" in line 23 of page 7 should be changed to "rotatably." In connection with this, attention is called to the description contained on page 8. If the disk 96 is rotated as therein described, the can body must be rotated with it, but, as described on page 7 of the matter referred to, this is not possible because the support 86 is said to be fixed or rigidly mounted.

Claim 9 is rejected on the same references as cited against it in the last Office action, taken with Brenzinger of record. It is not seen that there is any advantage, and therefore that there is any invention, in placing the gear at the lower end of the spindle of the Black machine. Attention is also called to the fact that Brenzinger shows the arrangement as claimed.

Claim 10 is rejected on the same references as claim 9, taken with Wegner of record.

Claim 27, formerly 28, is rejected on reference to 1,077,393, November 4, 1913, Conradi, Class 113–23.

> 856117 41 97

No. 856,117, Page 3.

Claims 8, 12, 28, and 29 are deemed allowable.

Claims 3, 7, and 13 to 26 inclusive contain novel subject-matter and will be allowable when the correction suggested in line 23 of page 7, has been made.

F.

L. W. MAXON, Examiner. 856117 42

7686

Serial No. 856,117 Amendment C Paper No. 8

Mail Room

Nov. 2, 1915,

U. S. Patent Office.

Los Angeles, California, October 28, 1915.

Div. 14, Room 309,

Wilson & Sumner,

CAN HEADING MACHINES,

Serial No. 856,117,

Filed August 10, 1914.

Commissioner of Patents,

Washington, D. C.

Sir:

In response to office action of September 18, 1915,

Correct Fig. 20 of the drawings as indicated in red ink in the accompanying print, an order for such correction and for photographic copy being filed herewith.

Page 5 cancel the paragraph beginning with line 25 and ending at line 30 and insert the following paragraph:

The can tops a are supported between the guide members 60 by means of a plate 64 which engages the edge of the lowermost can top, as shown in Fig. 21; the opposite edge of the lower-most can top extending downward toward a pair of spaced supporting plates 65 and 66, with the depressed portion b of the can top resting on the supporting plates 65 and 66 so that on withdrawal of the plate 64 from beneath the can top it will drop and be supported entirely on the plates 64 and 65, as shown on dotted lines in Fig. 21 and in full lines in Fig. 22.

Page 10 lines 12, 15, 21 and 24 change "seaming" to seam compressing.

Line 24 change "on" to after. Page 11 line 12 change "180" to 80. Page 13, 5th line from the bottom, change "36" to 86.

> 856117 43

7687

Paper No. 8. October 28, 1915.

S. N. 856,117.

Page 7 line 24 after "86" insert forming a chuck. Line 27 after "84" insert so that the disk or chuck 86 may have reciprocal and rotary movement in relation to the collar 84.

Re-write Claim 1 as follows:

4. In a can heading machine, a continuously revoluble can conveying carriage, means for delivering a can and can top coincidently to said carriage, means on said carriage for forming a double seam between a can top and can body carried thereon, a second continuously revoluble can conveying carriage, means for automatically passing the can from the first carriage to the second carriage, and seam compressing means on said second carriage for rolling the seam formed between the can and can top on the first carriage.

Claim 2 line 6 erase "and."

Last line after "carriage" insert and means of each of said carriages for revolving the can in relation thereto.

Cancel Claims 4 and 5.

Cancel Claims 9, 10 and 11.

Cancel Claim 27, former Claim 28 and insert the following claim, being former Claim 29, which was inadverently cancelled instead of Claim 28 in paper #6:

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D

22. In a can heading machine, a vertical revoluble shaft, a guide bearing carried thereby, a vertical stem slidsbly mounted in said bearing, means for reciprocating said stem as the shaft is rotated, a disk revolubly and reciprocally mounted in relation to said stem, a spring forming a yieldable support for said disk, a can top engaging disk spaced from the can supporting disk, means for rotating the can top engaging disk while the shaft is revolving, to 856117

 $\mathbf{2}$

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7688

Paper No. 8.

October 28, 1915.

S. N. 856,117.

spin a can and can top interposed between the disks, and means encircling the can top for forming a double seam while the can is being spun and advanced.

Renumber the claims in their order.

Insert the following claim:

25. In a can heading machine, means for clamping a can body and can top together, means for advancing the can and can top while clamped, means for rotating the clamping means while advancing to spin the can and can top, and means carried by the clamping means for forming a double seam while the can and can top are spinning and advancing.

Remarks:

Claim 1 has been rewritten to include the means for delivering a can and can top coincidently to the first continuously revoluble can conveying carriage, which is believed to so distinguish this claim from the references of record to warrant its allow-The new reference to Nichols discloses a ance. series of four separate machines combined, thru which a can is passed, each machine performing a separate step in the seam forming and rolling operations, and does not disclose a pair of continuously rotary carriages which perform the complete operation, as in applicant's machine and as set forth in Claim 1. The applicant still contends that as no one machine has been disclosed showing the assemblage set forth in this claim 1, that allowance of a claim of this character should be should be granted.

Claim 2 has been amended to include the can rotating means and is therefore believed to be allowable.

Claims 4, 5, 9, 10 and 11 have been withdrawn.

With reference to the Examiner's remarks in the 3 856117 45

7689

Paper No. 8.

S. N. 856,117.

October 28, 1915

fourth paragraph of Page 2 of the last office letter. The Examiner has manifestly erred, both in reading the drawings and the specifications, as to the matter on page 7 describing the member 86 as fixed or rigidly mounted, as stated by the Examiner. Line 26 page 7 states that this member has a flange 87 adapted to slidably engage the upper end of the collar 84 and therefore could not be fixed or rigidly connected to the collar. However, by the amendment to line 27 specifying that the disk 86 has reciprocal and rotary movement in relation to the collar 84, vagueness in this respect is removed.

Claim 27, formerly 28 rejected on Conrady, should have been cancelled instead of Claim 29, which is believed to be allowable in view of the remarks in previous amendment relative thereto.

New claim 25 is believed to be allowable in view of the absence of any disclosure in the references corresponding thereto.

It is now believed that this case can be passed to issue and allowance is therefore respectfully requested.

Respectfully,

R. S. BERRY, Attorney for Applicants.

506 Central Bldg.

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Mail Room,

Nov. 2, 1915.

U. S. Patent Office.

Serial No. 856,117. Paper No. 9. Letter (to Dfts.) & print.

Los Angeles, California, October 28, 1915.

Div. 14, Room 309,

Wilson & Sumner,

CAN HEADING MACHINES,

Serial No. 856,117,

Filed August 10, 1914.

Commissioner of Patents,

Washington, D. C.

Sir:

File photographic copy of the drawing containing Fig. 20 in the above entitled case and have the office draughtsman make the corrections indicated in red ink on the accompanying print, charging the cost of same to our account.

> Respectfully, HAZARD, BERRY & MILLER, R. S. BERRY,

> > Attorney for Applicants.

506 Central Bldg.

Chg. Account of Hazard, Berry & Miller. Approved:

L. W. MAXSON,

Ex. 856117





Arr - 4

186 Angelus Sanitary Can Machine Co. et al.

$$2-260.$$

Paper No. 11

All communications respecting this application should give the serial number, date of filing, title of invention, and name of the applicant.

ILT.

DEPARTMENT OF THE INTERIOR, UNITED STATES PATENT OFFICE, Washington.

December 10, 1915.

R. S. Berry,

Div. 14

506 Central Bldg.,

Los Angeles, Calif.

Room 309

Address only

"The Commissioner of Patents,

Washington, D. C.,"

and not any official by name.

Please find below a communication from the EXAMINER in charge of the application of Wilson & Sumner; Serial No. 856,117; filed August 10, 1914; for Can Heading Machines.

THOMAS EWING,

Commissioner of Patents.

This case has been examined as amended November 2, 1915.

The description inserted after "84," line 27, page 7, should be canceled because it is inaccurate. This will be obvious when considering the description contained in lines 27 to 30 inclusive of page 7. As therein described, the disk 86 carries bolts 88 which pass through apertures in a flange 85. Therefore there can be no relative rotary movement between the chuck 86 and the collar 84. In view of this, it is reiterated that "rigidly" in line 23 of page 7 should be changed to "rotatably."

To make the description of the parts consistent throughout, the last paragraph on page 9 should also be revised and it should be stated therein that the collar 111 is rotatable on the stem 112.

Claim 1 is rejected on the references and for the reasons of record taken in connection with 1,151,840, August 31 1915, Warme, and 1,152,188, August 31, 1915, Kruse, Both in Class 113-14.

Kruse shows two different seaming tools operating at two stations to perform a seaming operation similar to the disclosure in the Brenzinger patent. The application of this reference will be clear upon reference to the application of the Brenzinger 856117

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No. 856,117, Page 2.

reference in former office actions. Warme shows a can body seamed by being rolled along two separate and distinct seaming tools. In view of the art cited, it would not be invention to mount these tools on two distinct rotary carriers for performing the first and second seaming operations.

Claim 2 is rejected on reference to Nichols of record alone or taken with Warme cited.

Claim 22 is rejected on reference to any one of the following patents: Black, Conradi or Wegner, all of record.

Claim 25 is rejected on reference to Black of record.

vs. Ray O. Wilson et al. 189

The remaining claims are deemed allowable subject to the corrections in the description as required by this office action.

F.

L. W. MAXSON, Examiner. 856117 51 7690

U. S. Patent Office, Feb. 1, 1916, Division 14. Mail Room. Jan. 31, 1916, U. S. Patent Office.

> Serial No. 856,117. Paper No. 12. Amendment D.

Los Angeles, California, January 25, 1916.

Div. 14, Room 309,

Wilson & Sumner,

CAN HEADING MACHINES,

Serial No. 856,117,

Filed August 10, 1914.

Commissioner of Patents,

Washington, D. C.

Sir:

In response to the Official action of December 10, 1915, amendment to the above entitled application is hereby made as follows:

Page 7 line 23 change "rigidly" to rotatably.

Line 27 erase the description inserted after "84."

Line 30 before "A" insert The disk or chuck 86 thus has reciprocable and rotary movement in relation to the stem 78.

Page 9 line 27 before "mounted" insert reciprocably.

Line 28 erase "carried by a threaded stem 112 on" and insert rotatably mounted on a stud 112 carried by.

Cancel Claims 1, 2, 6, 22, 23, 24 and 25.

Renumber the claims in their order.

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Remarks:

This case is now in condition for immediate allowance as the specification has been amended according to the suggestions of the Examiner and the rejected claims cancelled.

Claims 6, 23 and 24 have been withdrawn as the mechanism covered thereby is made the subject matter of a separate application, filed January 14, 1916, serial number 72,056. As the assignee, F. F. Stetson, is also an assignee in the new application, it is believed his written consent for the trans-856117

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7691Paper No. 12. S. N. 856,117. January 25, 1916. fer of these claims is not necessary. If such is required, same will be filed on notice. Respectfully submitted, UNCERTIFIED CHECKS WILL NOT R. S. BERRY, Attorney for Applicant. 506 Central Bldg. $\mathbf{2}$ 856117 53 2-181Address Only The Commissioner of Patents, Washington, D. C. Serial No. 856117 DEPARTMENT OF THE INTERIOR, BE UNITED STATES PATENT OFFICE, ACCE Washington. Feb. 5, 1916. PT Ray O. Wilson & Arthur D. Sumner, Assor.

Sir: Your APPLICATION for a patent for an E **IMPROVEMENT** in

Can Heading Machine

filed Aug. 10, 1914, has been examined and AL-LOWED.

The final fee, TWENTY DOLLARS, must be paid not later than SIX MONTHS from the date of this present notice of allowance. If the final fee be not paid within that period, the patent on this application will be withheld, unless renewed

AH

with an additional fee of \$15, under the provisions of Section 4897, Revised Statutes.

The office delivers patents upon the day of their date, and on which their term begins to run. The printing, photolithographing, and engrossing of the several patent parts, preparatory to final signing and sealing, will require about four weeks, and such work will not be undertaken until after payment of the necessary fee.

When you send the final fee you will also send, DISTINCTLY AND PLAINLY WRITTEN, the name of the INVENTOR, TITLE OF INVEN-TION, AND SERIAL NUMBER AS ABOVE GIVEN, DATE OF ALLOWANCE (which is the date of this circular), DATE OF FILING, and, if assigned, the NAMES OF THE ASSIGNEES.

If you desire to have the patent issue to AS-SIGNEES, an assignment containing a REQUEST to that effect, together with the FEE for recording the same, must be filed in this office on or before the date of payment of final fee.

After issue of the patent uncertified copies of the drawings and specifications may be purchased at the price of FIVE CENTS EACH. The money should accompany the order. Postage stamps will not be received.

Final fees will NOT be received from other than the applicant, his assignee or attorney, or a party vs., Ray O. Wilson et al. 193

in interest as shown by the records of the Patent Office.

Respectfully, THOMAS EWING, Commissioner of Patents.

R. S. Berry 506 Central Bldg., Los Angeles, Cal.,

> 856117 54

U. S. Patent Office. Mar. 8, 1916. Division 14. Mail Room. Mar. 7 1916 U. S. Patent Office. WESTERN UNION TELEGRAM Newcomb Carlton, President George W. E. Atkins, Vice-President Belvidere Brooks, Vice-President. Received at Wyatt Building, Cor. 14th and F Sts., Washington, D. C. Always Open. Mar. 7, 1916. Serial No. —. Paper No. 13. 591 CH 32 NL Los Angeles Cal. 6. 2081Commissioner of Patents, Washington, D. C. Please permit H. N. Low to examine pending

applications of Wilson and Sumner for Can Heading Machine filed August tenth, 1914, Serial number eight five six one one seven.

> R. S. BERRY. 1250 a. m. 856117 55

Henry T. Hazard R. S. Berry Herman Miller

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HAZARD, BERRY & MILLER

The Pioneer Patent Agency Established 1878 U. S. and Foreign Patents and Trade Marks Central Building

Los Angeles

Certificate of Deposit \$20 Rec'd Aug. 9, 1916. C. C. U. S. Pat. Office.

> August Fourth 1916

Commissioner of Patents,

Washington,

D. C.

Sir:

We have this day deposited with the First National Bank, of Los Angeles, a United States Devs. Ray O. Wilson et al. 195

pository, the final government fee of \$20.00 in the application of Ray O. Wilson and Arthur D. Sumner, for invention entitled Can Heading Machine, assignors to F. E. Stetson, filed August 10, 1914, Serial No. 856117, and allowed February 5, 1916. Respectfully,

JLG.C.

HAZARD, BERRY & MILLER.

856117

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C. C.
Ray O. Wilson & Arthur D. Sumner.
Ser. 856,117
Allowed Feb. 5, 1916.
Hazard, Berry & Miller
Filed Aug. 10, 1914.
Invention—Can heading machine.
In event fee is paid. Have issue delayed 3
months or until notified. Do not allow it to issue

H. B. & M. R. S. BERRY, Attv.

ffpd Aug. 9. Nov. 9.

in due course.

WNF.

DEPARTMENT OF THE INTERIOR, UNITED STATES PATENT OFFICE, Washington, D. C.

August 11, 1916.

Mr. R. S. Berry, 506 Central Bldg., Los Angeles, Cal.

Sir:

Your letter in relation to the application of Wilson and Sumner, Serial No. 856,117, allowed February 5, 1916, and in which the final fee was paid August 4, 1916, has been received. In accordance with your request and under the latitude allowed by Sec. 4885, R. S., issuance of this patent will be deferred until October 31, 1916, unless you do not later than October 5, request an earlier issue. Respectfully,

W. F. WOOLAID,

Acting Chief Clerk.

856117

2-254

U. S. Patent Office. Oct. 18, 1916. Division 14.

> Serial No. 856,117. Paper No. 14. Ex'r's Amendt. E.

DEPARTMENT OF THE INTERIOR, UNITED STATES PATENT OFFICE,

Washington, D. C.

October 18, 1916.

In compliance with the provisions of order No. 1718, dated June 8, 1907, and which reads as follows:

It is hereby ordered that, except by formal amendment duly signed or as hereinafter provided, no corrections, erasures, or interlineations be made in the body or written portions of the specification or of any other paper filed in an application for patent.

Obvious informalities in the wording of the specification may be corrected by the examiner, but said correction must be in the form of an amendment, approved by the Principal Examiner in writing, placed in the file, and made a part of the record. The changes specified in the amendment will be entered by the clerk in the regular way.

It is directed that no other changes be made by any person in any record of this office without the written approval of the Commissioner of Patents.

Attorneys, employees of the Patent Office, and all others will be held to strict accountability for any violation of this order.

The following changes are made in-

Application Serial No. 856,117; Filed Aug.

10, 1914; Can Heading Machine of R. O. Wilson & Arthur D. Sumner.

Page 11, lines 10 and 11, change "disk" to "disks."

Page 2, line 6 from the bottom, insert "sec-

tion" after "vertical."

CHAS. S. GRINDLE,

Examiner, Division 14. 856117 59 R. O. WILSON & A. D. SUMNER. CAN HEADING MACHINE. APPLICATION FILED AUG. 10, 1914.

1,203,295.

Patented Oct. 31, 1916. 9 SHEETS-SHEET 1.





R. O. WILSON & A. D. SUMNER. CAN HEADING MACHINE. APPLICATION FILED AUG. 10. 1914.

1,203,295.

Patented Oct. 31, 1916. 9 SHEETS-SHEET 3





Witnesses. James M ather R & Burry

Inventors. Arthur D. Sumner. Ray D. Wilson. *B*4 Haardo Stanson. Attus.


R. O. WILSON & A. D. SUMNER. CAN HEADING MACHINE. APPLICATION FILED AUG. 10, 1914.

1,203,295.

Patented Oct. 31, 1916. 9 SHEETS-SHEET S.



James M. abbert P.S. Bury

Inventors, Arthur D. Sumner, Ray O. Witson, By and Strainse allys.

R. O. WILSON & A. D. SUMNER. CAN HEADING MACHINE. APPLICATION FILED AUG. 10, 1914.

1,203,295.

Patented Oct. 31, 1916. 9 SHEETS-SHEET 6.



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R. O. WILSON & A. D. SUMNER. CAN HEADING MACHINE. APPLICATION FILED AUG. 10, 1914.

1,203,295.

Patented Oct. 31, 1916. 9 SHEETS-SHEET 1.









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208Angelus Sanitary Can Machine Co. et al.

UNITED STATES PATENT OFFICE.

BAY O. WILSON AND ARTHUR D. SUMNER, OF LOS ANGELES, CALIFORNIA. ASSIGNORS OF THIRTY ONE-HUNDREDTHS TO SAID WILSON, THIRTY ONE-HUNDREDTHS TO SAID SUMNER, AND FORTY ONE-HUNDREDTHS TO F. F. STETSON, OF LOS ANGELES, CALIFORNIA.

CAN-HEADING MACHINE.

1,203,295.

Specification of Letters Patent. Patented Oct. 31, 1916. Application filed August 10, 1914. Serial No. 856,117.

To all whom it may concern: Be it known that we, RAY O. WILSON and ARTHUR D. SUMNER, both citizens of the United States, residing at Los Angeles, in 5 the county of Los Angeles, State of Cali-

- fornia, have invented new and useful Improvements in Can-Heading Machines, of which the following is a specification. This invention relates to a can heading
- 10 machine, and particularly pertains to a mechanism for double seaming the ends or caps on metal cans.

It is the object of this invention to provide a can heading machine for placing the

- 15 bottom ends on cans in the manufacture of the same and for double seaming the covers on the cans after the materials to be contained in the can have been placed therein, and the particular object is to provide a ma-
- 20 chine of this character which is continuous in operation, that is, in which the can is conveyed continuously through the machine in the heading operation without stop and start movements.
- A further object is to provide a can head-25ing machine which, by reason of a continuous and non-intermittent progress of cans therethrough, is capable of a more rapid and consequently larger output than is effected 30 by most can heading machines now gener-
- ally in use.

ing machine in which a large number of cans will be operated on simultaneously and 35 advanced continuously through the machine without interruption.

A further object is to provide a can head-

- cessible for removal, repairs or adjustment. A further object is to provide means for feeding the ends of the cans to the can bodies and to provide means whereby the 45 can body and the top therefor are delivered
- simultaneously to the primary seam forming mechanism.

A further object is to provide a seaming mechanism by which the joints between the 50 can body and ends will be effectively sealed

by spinning the contiguous edges of the can ing device. Fig. 22 is a vertical section on body and can-top together in a double seam, the line 22-22 of Fig. 21 showing a can top

and which is effected while the can is advancing through the machine.

The invention is illustrated in the accom- 55 panying drawings, in which:

Figure 1 is a plan view of the can heading machine with end portions thereof broken away. Fig. 2 is a side elevation of same. Fig. 3 is a vertical section on the 60 line 3—3 of Fig. 2, as seen in the direction indicated by the arrows. Fig. 4 is a vertical section on the line 4-4 of Fig. 2, as seen in the direction indicated by the arrows. Fig. 5 is a horizontal section on the line 65 5-5 of Fig. 2, illustrating the driving gears and indicating by arrows the direction of rotation of same. Fig. 6 is a horizontal section on the line 6-6 of Fig. 2, showing the can advancing mechanism. Fig. 7 is a de-70 tail in elevation of one of the stationary cam disks showing the formation of the cam groove on the periphery thereof, as seen on the line 7-7 of Fig. 6 in the direction indicated by the arrows. Fig. 8 is a 75 diagrammatic view illustrating the move-ments of the can and the actions thereon during the double seaming operation. Fig. 9 is an enlarged detail section on the line 9-9 of Fig. 2, partly in elevation showing 80 a can in position on the final double seamer. Fig. 10 is an enlarged detail vertical section on the line 10-10 of Fig. 2, illustrating the A further object is to provide a can head- can in position on the initial seamer. Figs. 11, 12 and 13 are details in section of the initial 85 seamer illustrating the manner in which the primary seam is formed between the can body and head. Figs. 14 and 15 are detail sections illustrating the manner of forming the initial seam on the can by the mecha-90 ing machine which is compact so as to oc- the initial seam on the can by the mecha-cupy small floor space and in which the nism illustrated in Figs. 11, 12 and 13. Figs. 40 parts are so arranged as to be readily ac- 16, 17 and 18 are views illustrating the final 16, 17 and 18 are views illustrating the final seaming operation on the can and showing the method for effecting same. Fig. 19 is an enlarged detail showing the double seam 95 between the can head and body as completed by the mechanism shown in Figs. 16, 17 and 18. Fig. 20 is an enlarged detail in plan of the can top seaming mechanism. Fig. 21 is a section and elevation on the line 100 21-21 of Fig. 20 illustrating the can tops as normally positioned in the can top feed-

as delivered from the can top feeding mech- 55; the wheel 56 and the arms 55 being roanism. Fig. 23 is a detail section on the tated in opposite directions and at such line 23-23 of Fig. 20, showing a can top speeds in relation to each other that a can positioned on the supporting plate at one 5 side thereof.

More specifically, 25 indicates the station-ary bed or base of the machine, which may be of any suitable construction, and which forms the main support of the various por-

- 10 tions of the machine. Mounted in suitable bearings on the base 25 is a drive shaft 26 (reference being had to Fig. 5) which is fitted with a belt pulley 27 at one end thereof from which it may be rotated continu-
- 15 ously from any suitable source of power; the opposite end of the drive shaft 26 being provided with a hand wheel 28 by means of which it may be rotated manually when it is desired to adjust the positions of the 20 various parts controlled thereby when the machine is not in operation.

Mounted on the drive shaft 26 is a beveled pinion 29 meshing with a corresponding pinion on the underside of a spur gear 25 30, which in turn meshes with an idler gear 31 meshing with a large gear 32 mounted on a vertically extending tubular shaft 33; the gears 30 and 31 constituting speed re-duction gears. A second beveled pinion 34

- 30 is mounted on the drive shaft 26 and meshes with a beveled gear 35 mounted on a shaft 36 which extends upwardly through the tubular shaft 33. Meshing with the gear 32 on one side thereof is a gear 37 on a ver-
- 35 tical shaft 38 and meshing with the gear 32 on the side opposite the gear 37 is a gear 39 on a shaft 40, which gear 39 also meshes with a large gear wheel 41 on a shaft 42. A gear wheel 43 of a diameter slightly less 40 than that of the gear wheel 41 meshes with
- the latter and also with a smaller gear 44; the gear 43 being mounted on a shaft 45 and the gear 44 on a shaft 46.

The tubular shaft 33, shaft 40 and shaft extend upwardly through bearings 47, 45 42 48 and 49 carried by brackets 50, 51 and 52 respectively carried on an elevated portion 53 of the base 25, and the shafts 38, 45 and

- 46 are carried upward through suitably 50 mounted bearings. The shaft 46 extends above a can receiving and feeding table 54 which is secured to the shaft 46 and revoluble therewith, and rigidly mounted on the upper end of the shaft 46 is a pair of curved
- 55 can engaging arms 55 extending on oppo-site sides of the sides of the shaft 46 adjacent the surface of the revoluble table 54. The shaft 45 has a horizontally extending can feeding wheel 56 mounted thereon which 60 wheel is arranged immediately above the table 54 and is formed with a plurality of can receiving pockets 58 on its vertical edge which pockets are approximately semi-cylin-
- 65 of cans fed thereto by means of the arms concentric with the curved rail 59' on a 130

advanced by an arm 55 will be moved into a pocket 58 on the wheel 56 and carried 70 around to the initial seam forming mechanism later described. A curved guide rail 59 is arranged concentric with the wheel 56 and spaced therefrom and is adapted to engage the outer portions of the cans to main- 75 tain them in position in the pockets 58 as the wheel 56 revolves; this guide rail ex-tending approximately half way around the wheel 56 on a plane below the upper face of the latter. 80

Means are provided for automatically feeding the can-tops to the cans as they are advanced by the wheel 56, which means is particularly illustrated in Figs. 20, 21 and 22, and includes a series of four upright 85 guide members 60 arranged on the corners of a rectangle and between which the cantops are arranged in a stack; the guide members 60 being carried on horizontally extending slotted plates 61 supported on brackets 90 62 and adapted to be rigidly secured to the latter by means of bolts 63 which pass through the slots in the plates 61; the plates 61 being adapted to be adjusted to position the guide members 60 to accommodate can- 95 tops -a of various diameters and to position them in proper relation to the cans advanced by the wheel 56. The brackets 62 are carried on a standard 62' shown in Fig. 22.The guide members 60 are so arranged 100 as to dispose the can-tops stacked therebetween immediately over the pockets 58 on the wheel 56 so that when a can-top is discharged from the stack, as will presently be described, it will be deposited immediately 105 above a can being advanced by the wheel.

The can tops a are supported between the guide members 60 by means of a plate 64 which engages the edge of the lowermost can top, as shown in Fig. 21; the opposite 110 edge of the lowermost can top extending downward toward a pair of spaced supporting plates 65 and 66, with the depressed portion b of the can top resting on the supporting plates 65 and 66 so that on withdrawal 115 of the plate 64 from beneath the can top it will drop and be supported entirely on the plates 64 and 65, as shown in dotted lines in Fig. 21 and in full lines in Fig. 22.

The plates 65 and 66 are mounted on the 120 undersides of the brackets 62 above the wheel 56 and the guide rail 59; the plate 65 connecting with the curved guide rail 59' arranged above the guide rail 59 with its upper face flush with the underside of the 125 lower wall of a groove 67 formed on the inner face of the guide rail 59', and the plate 66 connects with a curved rail 68 having a drical and are adapted to engage the sides groove 69 on its inner face and arranged

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plane therewith. The grooves 67 and 69 are designed to receive peripheral flanges -cformed on the can-tops -a- to support the can-tops clear of the cans -d- as the latter 5 are advanced by the wheel 56. The plate 64 is mounted on a curved arm 70 pivoted at 71

- on a lug on the bracket 62; the outer end portion of the arm 70 being curved inwardly beneath the rail 59 to extend in the path of 10 travel of the can advanced by the wheel 56
- in such manner that the can will operate to rock the arm 70 on its pivot 71 to withdraw the plate 64 out of engagement with the lower can-top -a and cause the latter to
- 15 drop and be supported solely on the plates 65 and 66. The arm 70 will be moved by the action of the can as indicated in dotted lines in Fig. 20 and will be restored to its normal position by means of a spring 72; 20 the plate 64 on returning to its normal posi-
- 20 the plate 64 on returning to its normal position engaging the flange -c of the can top -a arranged immediately above the can top previously dropped onto the plates 65 and 66. The forward edge of the plate 64 25 is formed with an inclined face which on
- engaging the edge of the can-top will act to slightly elevate that edge of the can-top so that can-top engaging members 73 carried by the wheel 56 will clear the can-top sup-30 ported on the plate 64 and will engage the
- lowermost can-top supported on the plates 65 and 66.

The can-top engaging members 73 comprise outwardly and upwardly projecting 35 fingers mounted on the upper edge of the wheel 56 to one side of the pockets 58; a cantop engaging member 73 being mounted at the upper outer edge of each pocket 58 as shown in Fig. 1, and operating when the 40 wheel 56 is revolved, when a can is positioned in the pocket 58 to actuate the lever 70, to engage the can-top released by the plate 64, and advance the can-top along the

- grooves 67 and 69 formed in the rails 59' 45 and 68 respectively. The can-tops will thus be advanced with the wheel 56 directly above the cans in the pockets 58 and will be spaced therefrom by reason of the can-top being supported on the rails 59' and 68 above the
- 50 outer edge of the wheel 56, and above the top of the cans; the cans -d being supported on an upwardly inclined rail 74 extending beneath the outer edge of the wheel 56 on the path of travel of the cans carried
- 55 by the latter, and terminating at its lower end adjacent the table 54. The can-tops are thus supported clear of the contents of the cans which, frequently project above the upper edges of the cans, the cans, however,
 60 being gradually moved upward toward the
- can-top as it is advanced along the upwardly inclined can supporting rail 74 until the can and the top therefor are discharged from engagement with the wheel 56, as will 65 presently be described.

Rigidly mounted on the shaft 42 is a collar 75 on which a series of four radiating brackets 76 are formed and on the outer ends of which brackets sleeves 77 are mounted, which sleeves form guides for vertically 70 reciprocal stems 78, the lower ends of which are fitted with rollers 79 extending into a cam groove 80 formed on an annular flange 81 formed on the base 25 and encircling the shaft 42 concentric therewith. Each of the 75 78 is formed with an internally stems threaded bore 82 to receive a threaded stud 83 adapted to be adjusted vertically in relation to the stem and on which stud a collar 84 is rotatably mounted. The collar 84 is 80 formed with an annular flange 85 intermediate its ends and has a disk 86 forming a chuck on its upper end; the disk 86 being formed with an annularly depending flange 87 adapted to slidably engage the upper end 85 of the collar 84. Depending bolts 88 on the disk 86 pass through apertures in the flange 85 and are formed with heads 89 which are adapted to engage the underside of the flange 85 to limit the upward movement of 90 the disk 86. The disk or chuck 86 thus has reciprocable and rotary movement in rela-tion to the stem 78. A coiled spring 90 is interposed between the disk 86 and the flange 85 to normally maintain the disk 86 in its 95 uppermost position and to provide a resilient seat therefor. The upper faces of the disks 86 are arranged on a plane with the upper end of the inclined rail 74 which terminates adjacent the path of travel of the 100 outer edges of the disks 86 as the latter are advanced on the rotation of the shaft 42.

Rigidly mounted on the upper end of the shaft 42 is a cross head 91 comprising a series of radiating arms carrying sleeves 92 105 in which vertical tubular spindles 93 are revolubly mounted. A series of four of these spindles 93 and their bearings 92 are provided and on the lower end of each spindle 93 is a pinion 94 which meshes with a 110 fixed gear 95 rigidly mounted on the bearing Mounted on the underside of each pin-49. ion 94 and secured to the spindle 93 is a disk 96 which is formed with an outwardly extending flange 97 on its outer edge to receive 115 a ring 98 which is slidable on the flange 97 and is normally disposed concentric with the disk 96 and the spindle 93 by means of a spring pressed ball 99 adapted to seat in an annular channel 100 formed on the upper 120 face of the ring 98; a socket 101 being formed in the pinion 94 to receive the ball 99 and a pair of washers 102 between which a spring 103 is interposed.

A set screw 104 is mounted in the pinion 125 94 and bears against the upper washer 102 and is adapted to be adjusted so as to vary the tension of the spring 103.

The ring 98 is formed with an annular groove 105 on an offset portion of its inner 130

wall, the lower edge of which groove is and their mountings are provided and the formed by a flange 106 having an out- stems 113 are slidably engaged by sleeves wardly diverging lower face. This ring 98 117 carried on brackets 118 secured to the constitutes an initial seaming device and is 5 designed to be normally disposed imme-

- diately above the can receiving disk 86 so
- diately above the can receiving disk 86 so as to engage the top of the can supported on the disk 86, as particularly shown in Fig. 10; a seaming ring 98 being positioned 10 over each of the disks 86. The disk 96 is adapted to engage the top -a— of the can as particularly shown in Figs. 12 and 13, and operates to rotate the can when the gear 94 is revolved by being carried around the 15 stationary gear 45 on the rotation of the shaft 42
 - shaft 42. The rings 98 are adapted to be actuated on

the rotating of the cross head 91 to engage the flanges -c— on the can covers -a—

- 20 and turn a lip -e on the flange -c beneath an annular flange -f on the top of the can, as shown in Figs. 14 and 15. The actuation of the rings 98 is effected by means of a cam disk 107 rigidly mounted on the 25 underside of the stationary gear 95; the cam
- disk 107 having an arcuate face eccentric to the center of the shaft 42 on which the outer faces of the seaming rings 98 are adapted to bear, when performing the seam
- 30 forming operation and having a concentric arcuate face which engages the rings as the gears 94 are rotated to position the rings concentric with the gears 94. When thus disposed they are engaged by the centering 35 balls 99 so that the rings will be positioned concentric with the cans when the latter are
- fed to the disks 86 from the can feeding wheel 56. The disks 86 and the cross head 91 form a carriage for advancing the cans, 40 which on being carried around by the rotation of the shaft 42 receive the initial seaming operation just described and as shown in Figs. 14 and 15, and are then subjected
- to a second operation, being delivered from 45 the can receiving disks 86 to a platform 108 by means of an arm 109 mounted on the shaft 40; the arm 109 having a semi-circular end portion 109' adapted to engage the cans on the disks 86 and remove them from the
- 50 latter. In order to permit the removal of the cans from the disks 86 the latter are moved downwardly by the action of the cam groove 80 on the flange 81 which allows the stems 78 to gravitate downward and with-55 draw the upper end of the cans on the disks on the flange 116. 86 clear of the seaming ring 98.

The can engaged by the arm 109 is ad- the cans from the disk 122 and the disks 96, vanced over the platform 108 and is delivered to a disk 110 reciprocably mounted on 60 a collar 111 rotatably mounted on a stud 112 carried by a reciprocal stem 113 having a roller 114 on its lower end engaged in a cam groove 115 on a flange 116 carried by the base 25 and formed concentric with the 65 shaft 33. A series of four of the disks 110

tubular shaft 33.

Mounted on the upper end of the tubular 70 shaft 33 is a cross head 119 having a series of sleeves 120 forming bearings for tubular spindles 121 on the lower ends of which disks 122 are rigidly mounted; a disk 122 being disposed above each of the can re-75 ceiving disks 110 and adapted to engage the tops of the cans delivered to the disks 110. The tubular shafts 121 are provided with gears 123 which mesh with a large gear 124 mounted on the shaft 36 extending through 80 the tubular shaft 33. The shafts 33 and 36 are designed to be rotated in opposite directions so that the speed of rotation of the spindles 121 will be increased without the use of an excessively large gear 124 or re- 85 duced pinions 123.

The cans carried around by the disks 110 and 122 are designed to be subjected to the action of ordinary double seam compressing rollers 125 formed with annular grooves 90 126 thereon adapted to engage the seams on the upper edges of the cans as shown in Fig. 19. The double seam compressing rollers 125 are mounted upon bell crank lever arms 127 pivoted at 128 to the cross 95 head 119; the bell crank arms 127 being provided with wheels 129 adapted to traverse a cam disk 130 rigidly mounted on the bearing 47; the cam disk 130 having an eccentric cam face by which the bell crank arms 100 127 are rocked to gradually increase the pressure of the can seam compressing rollers 125 on the can seam and crowd the seam against the disk 122 as the can is rapidly revolved by the latter, and thereby complete 105 the seaming operation.

The can after being subjected to the action of the scam compressing rollers 125 are ejected from the disks 110 by means of arms 131 mounted on the shaft 38 and adapted to 110 engage the can bodies and shove them off the can supporting disks 110 onto a suitable conveyer, not shown; the disks 110 moving into a lower position when the cans are engaged by the arms 131 so as to move the 115 heads of the cans clear of the disks 122. The downward movement of the disks 110 is effected by the rollers 114 on the stems 113 moving downward in the cam groove 115 120

As a means for insuring the release of stems 132 and 133 are mounted in the tubular shafts 121 and 93 respectively; the lower ends of the stems 132 and 133 being formed 125 with shoulders 134 and 135 which are engaged by springs 136 and 137 supported upon inturned flanges on the lower ends of the shafts 121 and 93.

The springs 136 and 137 operate to nor- 130

mally maintain the stems 132 and 133 in an 43 and 44, which are rotated in the direcuppermost position with the lower ends of the stems above the lower faces of the disks 122 and 96 and out of contact with the can-5 top engaged by the disk. These stems 132 and 133 are designed to be depressed in opposition to the springs 136 and 137 to force the cans out of engagement with the disks 122 and 96 the moment the can supporting

- 10 disks 110 and 86 are lowered by the action of the cam groove 115 and 80 on the rollers 114 and 79. The depression of the stems 132 and 133 is accomplished by means of stationary arms 138 and 139 mounted on stand-15 ards carried by the base portion 53 which
- arms project in the path of travel of the upper ends of the stems 132 and 133 at points immediately above the points where the can supporting disks 110 and 86 are
- 20 lowered in such manner that the stems 132 and 133 will be engaged by the arms 138 and 139 and thereby be suddenly depressed so as to impact against the head of the can. The upper ends of the stems 132 and 133
- 25 project a short distance above the upper ends of the tubular shaft 121 and 93 and are formed with heads 140 and 141 respectively \mathbf{which} have crowned upper faces which are engaged by curved lower faces on 30 the arms 138 and 139.

As a means for permitting a slight rela-tive movement of the arms of the bell crank arms 127 carrying the seaming rollers 125 and the cam engaging wheels 129 to permit 35 the seaming rollers 125 to pass over the

- joint in the sides of the can body the arms 142 carrying the wheels 129 are formed of a resilient metal such as steel having sufficient rigidity to insure a proper seaming 40 action of the rollers 125 but which will
- yield when subjected to the pressure thereon caused by the seaming rollers 125 passing over the can seam. To permit adjustment of the rollers 125 and the wheels 129 in relation
- 45 to each other to accommodate them to cans of different diameters the arms carrying the rollers 125 are constructed to be adjusted to various angles in relation to the arms 142.
- To effect this adjustment, said arms are 50 mounted separately on the pivot pins 128 and are formed with overlapping flanges 143 adapted to be secured together with the arms in a desired angular position in relation to each other by means of pins 144 ex-55 tending through an aperture in the upper-
- most flange and adapted to engage any one of a series of apertures 145 formed in the lowermost flange on an arc of a circle concentric with the pivot pin 128.
- 60 drive shaft 26 is rotated continuously from flange -c on the can top so as to bend the any suitable source of power, thus effecting lip -e— beneath the flange -f— on the a continuous rotation of the shafts 33, 36, upper edge of the can body as shown in 38, 40, 42, 45 and 46 through the medium Fig. 15. The can will then be discharged

tions indicated by the arrows in Fig. 5. This effects a continuous rotation of the arms 55 on the shaft 46, can feeding wheel 56 and shaft 45, the brackets 76 and cross 70 head 91 on the shaft 42 carrying the primary seam forming mechanism, the arms 109 on the shaft 40, the brackets 118 and cross head 119 on the tubular shaft 33 carrying the final seaming mechanism, the gear 75 124 on the shaft 36 for accelerating the gears 123, and the arms 131 on the shaft 38.

It will now be seen that a can fed to the arms 55 will be advanced continuously during its travel through the machine and by 80 reason of no intermitttent movement of the can or the rotating parts conveying same that the can may be passed through the ma-chine and subjected to the heading action thereof at a high speed, thus producing a 85 machine that is capable of a rapid output.

The operations on the can are as follows: On its being engaged by the arms 55 it is advanced into a pocket 58 on the wheel 56 and carried around by the latter into the 90 passage inside of the guide rail 59. The body of the can on striking the arm 70 rocks the latter on its pivot 71 and moves the plate 64 from beneath a can-top -a- so that the forward edge of the latter will 95 drop as before described into the path of travel of the finger 73 on the wheel 56 at the rear edge of the pocket 58 carrying the The finger 73 will then carry the cancan. top -a into the grooves 67 and 69 on the 100 rails 59' and 68 with the can-top positioned directly above the can.

The can is supported on the inclined rail 74 and is moved by the wheel 56 into position over a can supporting disk 86 which 105 is moved beneath the can by the rotation of the shaft 42 at a speed corresponding to that of the can; the can and the disk 86 registering coincidently when alined between the shafts 42 and 45. The disk 86 is then ele-110 vated by the action of the cam groove 80 on the roller 79, thereby causing the disk 86 to engage the lower end of the can and raise it into engagement with the can-top thereabove; the movement of the disk 86 being 115 sufficient to carry the can-top into engage-ment with the disk 96. Sufficient pressure is exerted on the can between the disk 86 and the disk 96 that the rotation of the latter will operate to spin the can as it is advanced 120 with the disk 86 and carried out of the pocket 58 on the wheel 56. While the can is being thus spun the seam forming ring 98 will be actuated by the cam 107 and moved In the operation of the invention, the into engagement with the lip -e and 125 65 of the gears 29, 30, 31, 32, 34, 35, 37, 39, 41, from the disk 86 as before described and 130

conveyed by the rotating arms 109 onto a partial revolution of said last named shaft, disk 110 where it is engaged by the rapidly means for automatically transposing the rotating disk 122 and spun while being ad- cans from the supporting means carried by vanced by the rotation of the shaft 33. The one shaft to the supporting means carried 5 seaming roller 125 will then be caused to by the other shaft, and means controlled by 70 press against the seam between the can-top the rotation of the second shaft for rolling and can body by the action of the cam 130 the seams between the can-tops and cans. as previously described, during a partial 4. In a can heading machine, a pair of revolution of the shaft 33; the can being parallel vertically extending shafts one of 10 spun rapidly a number of revolutions during which is tubular, means for rotating said 75 this action. On completion of this opera- shafts continuously in corresponding direcwith the can-top effectively secured thereto. verse direction in relation to said tubular 15 What we claim is:

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1. In a can heading machine, a continuously revoluble member, a series of spindles thereon, disks on said spindles, means for rotating the spindles by the rotation of the shaft, can top engaging means on said spin-20 revoluble member, means for clamping a can-top and can against each of the disks to cause the cans to rotate as they are advanced by the revoluble member, means encircling and forming a seam between the the rotation of said spindles during a par-25 can-top and can while it is being advanced tial revolution of the tubular shaft, means 90 a partial revolution of the revoluble member, means for automatically removing the in operative relation to the seam rolling can from the revoluble member, continuous means, means on the other shaft for forming can advancing means adapted to receive the a scam between the can top and can body 30 cans from said removing means, and means during a partial revolution of the shaft and 95 for rolling the seam between the can-top and while it is in motion, and means for trans-

can while it is being advanced continuously. ferring the cans from the seam forming 2. In a can heading machine, a revoluble means to the seam rolling means. carriage, vertically reciprocal can support-5. In a can heading machine, a continu-35 ing means on said carriage, means for coin- ously revoluble can conveying carriage, 100 cidently delivering can-tops and cans to the means movable with said carriage adapted can supporting means while the carriage is to encircle and form a double seam berotating, means encircling the can top for tween a can top and can body, means for forming seams between the can tops and spinning the can when encircled by the 40 cans while they are advancing on a partial seaming means, a second continuously rev-revolution of the carriage, a second revolu- oluble can conveying carriage, means on ble carriage, means for supporting cans on said second carriage for rolling the seam ble carriage, means for supporting cans on said second carriage, means for transferring the cans from the supporting means on one 15 carriage to the supporting means on the other carriage, and means controlled by the rotation of the second carriage for rolling

the seam formed between the can-tops and cans on the first carriage. 50

3. In a can heading machine, a pair of revoluble shafts, means for rotating said shafts continuously, a series of sleeves carried by each of said shafts, stems reciprocally mounted in said sleeves, means for reciprocating said

55 stems on the rotation of the shafts, can supwith the reciprocal stems, can-top encircling 30 and engaging disks on said spindles, means for delivering can-tops and cans continu-ously between the supporting means and the and can tops continuously to one of said disks carried by one of said shafts, means on carriages, means on said last named car-said disks for forming seams between the riage for encircling the can top and cans 55 can-tops and cans as they are advanced by a to form a double seam, means for spinning 130

tion the can will be ejected from the disk tions, a third shaft extending through the 110 by the arm 131, as before described, tubular shaft adapted to be rotated in a reshaft, a gear mounted on the third shaft, a 80 cross head on the tubular shaft, a series of spindles on said cross head, pinions on said spindles meshing with the gear on the third dles, seam rolling means carried by said 85 cross head coöperating with the can top engaging means to roll the seams between the can tops and can bodies as they are spun by for supporting the cans to position the tops

formed on the first carriage, and means for automatically passing the can from the first carriage to the second carriage. 110

6. In a can heading machine, a continu-ously revoluble can conveying carriage, means movable with said carriage adapted to encircle and form a double scam between a can top and can body, means for spinning 115 the can when encircled by the seaming means, a second continuously revoluble can conveying carriage, means on said second carriage for rolling the seam formed on the stems on the rotation of the shafts, can sup-porting means carried by said stems, cross during the seam rolling operation, and heads carried by said shafts, spindles revolu-bly mounted in said cross heads in alinement from the first carriage to the second car-

riage. 7. In a can heading machine, a pair of 125

the can and can top coöperating with said with the centers of said disks, bearings on last named means, whereby the double seam said shaft in which said spindles are revoluis formed while the can is being advanced, bly mounted, disks on said spindles opposite means for conveying the can from one car- the can supporting disks, means for recip-

- eration while the cans are being advanced. 8. In a can heading machine, a vertical
- 10 shaft, a plurality of revoluble can support-ing disks carried by said shaft, a stationary gear encircling said shaft, a series of pinions meshing with said gear and carried by said shaft in vertical axial alinement with the
- 15 can supporting disks, means on said pinions adapted to encircle a can top and can carried on the supporting disk therebeneath to form a double seam between the can top and can body, and a stationary cam for coöper-
- 20 ating with said last named means on the rotation of the shaft and the pinions to form a double seam.

9. In a can heading machine, a vertical shaft, a plurality of revoluble can support-25 ing disks carried by said shaft, a stationary

- gear encircling said shaft, a series of pinions meshing with said gear and carried by said shaft in vertical axial alinement with the can supporting disks, means on said 30 pinions adapted to encircle a can top and
- can carried on the supporting disk there-beneath to form a double seam between the can top and can body, a stationary cam for coöperating with said last named means on
- 35 the rotation of the shaft and the pinions to form a double seam, a second shaft, revoluble can supporting means thereon, means for delivering the cans from the can supporting disks to the last named can supporting
- 40 means, means for rotating the cans on their supporting means, and spring pressed rollers engageable with the double seam adapted to roll the latter on rotation of the last named shaft.
- 45 10. In a can heading machine, a vertical rotary shaft, a plurality of revoluble can supporting disks carried thereby, a series of spindles arranged in vertical alinement with the centers of said disks, bearings on
- 50 said shaft in which said spindles are revolubly mounted, disks on said spindles opposite the can supporting disks, means for reciprocating the can supporting disks to clamp cans and can tops against the disks
- 55 on the spindles, pinions on said spindles, a stationary gear concentric with the shaft engaging said pinions whereby the cans are spun on rotation of the shaft while advancing, and means on said pinions arranged to 60 encircle the can top to form a double seam
- between the can top and can body. 11. In a can heading machine, a vertical rotary shaft, a plurality of revoluble can supporting disks carried thereby, a series 65 of spindles arranged in vertical alinement spinning and advancing.

5 riage to the other, seam rolling means on rocating the can supporting disks to clamp 70 the other carriage, and means for spin- cans and can tops against the disks on the ning the cans to effect the seam rolling op- spindles, pinions on said spindles, a stationary gear concentric with the shaft engaging said pinions whereby the cans are spun on rotation of the shaft while advancing, means 75 on said pinions arranged to encircle the can top to form a double seam between the can top and can body, comprising diametrically slidable seaming rings, and a stationary cam arranged to shift said rings as the cans 80 are advanced.

> 12. In a can heading machine, a pair of revoluble shafts, a plurality of resiliently supported revoluble can supporting disks carried by each of said shafts, revoluble 85 spindles carried by each of said shafts in vertical alinement with the axes of said disks, can top engaging disks on said spindles, means whereby the rotation of said shafts will rotate said spindles and thereby 90 spin cans carried by the supporting disks, means controlled by the spindles carried by one of the shafts for forming a double seam between the can tops and can bodies, means coöperating with the disks on the spindle 95 carried by the other shaft for rolling the seams, means for rotating the shafts continuously in unison, and means for transferring the cans from one set of disks to the 100 other set of disks.

> 13. In a can heading machine, means for clamping a can body and can top together, means for advancing the can and can top while clamped, means for rotating the clamping means while advancing to spin the 105 can and can top, and means encircling the can top for forming a double seam while the can and top are spinning and advancing.

> 14. In a can heading machine, means for clamping a can body and can top together, 110 means for advancing the can and can top while clamped, means for rotating the clamping means while advancing to spin the can and can top, means encircling the can top for forming a double seam while the 115 can is spinning and advancing, means for automatically removing the can and can top from the clamping means, and means for thereafter rolling the double seam while the can is being advanced. 15. In a can heading machine, means for 120

> clamping a can body and can top together, comprising a can top engaging disk and a resiliently mounted vertically reciprocal can supporting disk, means for advancing the 125 clamping means, means for rotating the can top engaging disk to spin a can while advancing, and means encircling the can top for forming a double seam while the can is 130

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16. In a can heading machine, means for ing a double seam while the can is spinning clamping a can body and can top together, and advancing. comprising a can body and can top engaging disk and a 18. In a can heading machine, a vertical resiliently mounted vertically reciprocal can revoluble shaft, a guide bearing carried 30 5 supporting disk, means for advancing the thereby, a vertical stem slidably carried in clamping means, means, for rotating the can said bearing, means for reciprocating said

- vancing, means encircling the can top for supporting disk reciprocally mounted in re-10 ning and advancing, means for automati- spaced from the can supporting disk, means
- disks, and means for thereafter rolling the the shaft revolves to spin a can and can top double seam thereon while the can is ad- interposed between the disks, and means carvancing.
- 15 elamping a can body and can top together, tween the can top and can body as the latter comprising a can top engaging disk and a is spun while the shaft is rotated. resiliently mounted vertically reciprocal can In witness that we claim the foregoing supporting disk, means for advancing the we have hereunto subscribed our names this 45
- 20 clamping means, means for rotating the can top engaging disk to spin a can while advancing, comprising a spindle on which the disk is mounted, a pinion on said spindle, and a stationary gear meshing with said 25 pinion around which the latter is advanced, and means encircling the can top for form-

top engaging disk to spin a can while ad- stem as the shaft is rotated, a revoluble can forming a double seam while the can is spin- lation to said stem, a can top engaging disk 35 cally removing the can from between the for rotating the can top engaging disk as ried by the can top engaging disk oncircling 40 17. In a can heading machine, means for the can top for forming a double seam be-

1st day of July, 1914.

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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

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- 2. Rej. Feb. 13, 1915.
- 3. Power of Attorney Mch. 1, 1915.
- 4. Amendt. A. & New Oath, June 14, 1915.
- 5. Rej. June 30, 1915.
- 6. Amendment B, July 29, 1915.
- 7. Rej. Sept. 18, 1915.
- 8. Amendment C, Nov. 2, 1915.
- 9. Letter (to Defts.) & print, Nov. 2, 1915.
- 10. Print (Sht. 9), Nov. 11, 1915.
- 11. Rej. Dec. 10, 1915.
- 12. Amendment D, Jan. 31, 1916.
- 13. Power to Inspect 3/8/16.
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TESTIMONY AND PROCEEDINGS ACCORD-ING TO DESIGNATIONS.

[1] 811 Washington Building,

Los Angeles, California, Thursday, December 21, 1922, 10:00 A. M.

[2] The MASTER.—This is a reference to hear and report and not to hear and determine.

[5] Mr. BLAKESLEE.—Ready. I wish to serve upon defendants affidavit of Reni S. Berry in reply to the affidavit by James Melville Abbett, expert for defendants, and to file the original.

(Document filed.)

[15] The MASTER.—I may say, Gentlemen, that while the association between Mr. Blakeslee and myself has been very close, he and I do not

always agree, and the only advantage he would have would be my knowledge of his mental processes and the confidence that he knows somewhat of patents and patent law. But I have equal confidence in Mr. Townsend. Mr. Townsend was brought to my attention first in the Patsy Romper case, as I recollect it, which was before this suit, and I believe at that time we had some conferences, even before I had met Mr. Blakeslee; and besides, Mr. Kelby is an old time Omaha friend, a friend of my father's, and when we come to balance the friendships, I call Mr. Kelby by [16] his first name the same as I call Mr. Blakeslee by a cognomen which is not one given him at the font. I don't think there would be any tendency which would be detrimental to either side, unless, perhaps a leaning over backwards to avoid giving any preference to the plaintiff, and I told Mr. Blakeslee frankly he would have to take that risk when he asked me if I was willing to serve. I also requested that they get into communication with Mr. Kelby and find whether it was satisfactory to defendants' counsel. I know they made some attempt, but whether it got through or not I couldn't say.

Now unless there is objection to proceeding I will consider the case ready for trial. I am ready to drop it, however, if there is any objection of any sort, personal or otherwise. After trying to read through that big patent I would just as soon let somebody else wrestle with it, because it is going to be a long, hard job, I believe; but I will give

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it my best attention, gentlemen, if you desire to proceed.

Mr. TOWNSEND.—Your statement, your Honor, is satisfactory to the defendants.

[17] Mr. BLAKESLEE.—I wish to offer at this time in connection with my opening statement the certified file wrappers and contents of the patents now in suit which stand with the charge of infringement and ask that they be received, respectively, as:

Plaintiffs' Exhibit 1, Patent No. 1,301,348, as to which two of the claims are relied upon;

Plaintiffs' Exhibit 2, Patent No. 1,250,406, as to which only Claim 1 is relied upon; and

Plaintiffs' Exhibit 3, Patent No. 1,203,295, as to which all the claims are relied upon.

[52] Mr. BLAKESLEE.—We do not pretend to be pioneers; that will be conceded right now. Our claim is for a combination, an improvement in the art.

[68] 514 Post Office Building.

Los Angeles, California, Friday, December 22, 1922, 10:00 A. M.

[70] The MASTER.—The suggestion was made yesterday that the plaintiffs send over one of their machines to be put up beside that of the defendants. What do you think about that?

Mr. TOWNSEND.—Well, I think we had better get a little [71] further along with our proceedings here. I am not concerned with the plaintiffs' structure as yet, until further developments. Now if counsel for plaintiff will have his engineers examine these models and compare them with the patents, we may stipulate that they are correct models of the three patents in suit, and that would be a great saving of expense to us as it would avoid the necessity of bringing down the engineer and model maker from San Francisco who made them and who would be called simply for the purpose of saying they are true and correct and all that.

Mr. BLAKESLEE.—Right on that head, we cannot stipulate that, and I do not propose to, because we can see very clearly where this thing is heading. We shall at all times contend that unless this be used here merely as an illustrative model for the purpose of illustrating argument it is immaterial and improper evidence; that it could not represent the physical situation of a true embodiment of the device of the patent because it is not built so that it can be operated, there being too much lost motion and too much frailty in such a wooden model to permit it to perform with the niceties that a machinist must have to embody such a complicated invention, and we shall obstruct at all times its use in any manner in this suit except to illustrate argument. The plaintiffs submit that the Master should see the machine of the plaintiffs. The Master, having familiarized himself, as he has now, with these patents certainly is qualified to keep [72] within his mind any distinctions he may find between the patents in suit and the commercial structure of plaintiffs. It is always the custom of this Court to view the machines of both parties. It is not to be assumed that the Master

will be led astray by any such inspection, and it is bound to assist him. Now that is our position with respect to this model. We do not trust it as being probative of anything in this case, and we will not stipulate it. If counsel desires to put on somebody who is qualified to testify that in general or in certain respects it exemplifies or typifies or simulates the specific disclosure of the patents in suit, that evidence can be given the weight the Master desires to give it.

The MASTER.—Can't you stipulate that it simulates?

Mr. BLAKESLEE.—Yes, subject to proof as to how it simulates. Now counsel cannot put a belt on that machine and run it—

The MASTER.—That is self-evident.

Mr. BLAKESLEE.—Yes. And all the questions raised here about whether cans will spill or how the different parts will work and so forth cannot be established by any such frail and wobbly model as that. That is out of the question. Therefore we stand on the usual procedure in these cases and refuse to stipulate about any such model.

Now as to the matter of proof of infringement, counsel stated not quite fully what had taken place in the preliminary [73] proceedings in this litigation. Both sides brought on and there were argued possibly eight or ten motions for particulars by both sides. The net result of that has been the filing of blue-prints of defendants' structures, particularly blue-prints A, B, and E annexed to the affidavit of Defendant Guenther, and which are connected with various of the bills of particulars, which are represented to be defendants' structure, to which we have applied the patents in suit as to parts of the patented construction. That is our principal and chief proof of infringement in this case.

Mr. TOWNSEND.—I didn't understand that.

Mr. BLAKESLEE.—I say those prints A, B, and E annexed to the bill of particulars—

The MASTER.—I think you should have the testimony of an expert to connect up those blueprints, because as I take it, the bill of particulars is not evidence except as an admission.

Mr. BLAKESLEE.—A bill of particulars is not evidence, of course, like answers to interrogatories, but it is part of the pleadings.

Mr. TOWNSEND.—A bill of particulars is not part of the pleadings.

Mr. BLAKESLEE.—They are part of the pleadings.

Mr. TOWNSEND.—No, a bill of particulars is never a pleading.

Mr. BLAKESLEE.—Well, they are not evidence, but they are a part of the pleadings. Answers to interrogatories are [74] evidence.

The MASTER.—Are there any interrogatories here?

Mr. BLAKESLEE.—No. Interrogatories were prepared and were put aside in argument because we thought we had enough here in the bills of particulars. Now all of these bills of particulars, prints and annexed papers which have been filed in this case as part of the evidence—and if the Court wishes a specific list of those I can read it into the record—

Mr. TOWNSEND.-Yes, you had better do that.

Mr. BLAKESLEE.—All right. First, on the plaintiffs' side,—

Mr. TOWNSEND.—Now, just a minute. We haven't got to that point yet.

Mr. BLAKESLEE.—Well, I think these ought to be in at this time.

Mr. TOWNSEND.—Yes, but don't anticipate that just for a minute.

The MASTER.—The defendants' interrogatories, then, may be excluded.

Mr. BLAKESLEE.—They were never answered; nor were the plaintiffs'.

The MASTER.—Now here is a bill of particulars filed June 6, 1922. Is that your first bill?

Mr. BLAKESLEE.—I have them in order here, on the plaintiffs' side. There is plaintiffs' bill of particulars dated June 5, 1922, and that applies the claims of the patents to [75] the blue-print.

The MASTER.—Here is one of April 17, 1922, blue-prints A, M, and B of defendants' machine.

Mr. BLAKESLEE.—Well, that will be among the defendants' papers. I have them segregated here as to the two patents.

Mr. TOWNSEND.—I just assume you have before you, your Honor, our bill of particulars with the affidavit there of Mr. Guenther on the matter.

Mr. BLAKESLEE.—The Court order was made on March 27.

The MASTER.—All right. What else?

Mr. BLAKESLEE.—Then the next is plaintiffs' bill of particulars of August 16, 1922.

Mr. TOWNSEND.—Have you omitted the bill of particulars we furnished on the 4th of May, 1922?

Mr. BLAKESLEE.—I am only going through the plaintiffs' bills of particulars now because I have them segregated here.

Mr. TOWNSEND.—The only thing is, this affidavit of Henry L. Guenther in the bill of particulars identifies and explains defendants' blue-prints A to G inclusive, and without that explanatory matter and the bill of particulars of defendants the bills of particulars later filed are without explanation.

Mr. BLAKESLEE.—Perhaps we can group them together; but my idea is to offer those of the plaintiffs first, and then we can offer those of the defendants and hook them up. Now August 16, 1922,—does your Honor find that? Of course I presume counsel will agree on the record—and I ask him now— [76] that each side reserve as to all these papers filed by the opposite side all objections to the relevancy, competency or materiality which may properly be urged before the Master or the Court as to any of same without particularizing. Is that satisfactory?

Mr. TOWNSEND.—I certainly want to enter an objection to the bills of particulars furnished on behalf of the plaintiffs as specifying their construction of the claims, particularly where such construction is set out in the bill of particulars and unsworn to, and therefore anonymous, as not proper evi-

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dence, except as these particulars filed by plaintiffs are admissions by plaintiffs, but not binding upon defendants.

Mr. BLAKESLEE.—I have asked that the general objection stand, by each side as to the others. That ought to be a sufficient reservation. So that we can urge anything we wish to specifically. Is that satisfactory?

Mr. TOWNSEND.—Well, I think that is the substance of what I have said. This mental reservation stuff I am rather leary of. But the general objection is that these are simply to be taken as admissions against the parties filing them and are not necessarily binding on the other party. Now I don't know what other objections you could make, but that is the particular objection—

Mr. BLAKESLEE.—Well, that objection may be added to the general reservation of objections which I have specified, if you wish.

[77] Mr. TOWNSEND.—Have you any objections in mind that were made?

Mr. BLAKESLEE.—Yes, there were motions made to strike out portions, and certain of those matters were not finally passed upon. Now as we proceed we can deal with those as we come to them.

The MASTER.—I will receive them simply as admissions on the parts of the various parties and warn you to supplement them with testimony as to the facts that you desire for your own use.

Mr. BLAKESLEE.—But does your Honor wish us to substantiate each admission by testimony?

The MASTER.-No, not the admissions of the

other side; that is sufficient. I would suggest, though, that you call attention to those admissions that you desire to have considered. That will be done in argument.

Mr. BLAKESLEE.—Yes; in the argument we will refer, of course, to the specific admissions.

The MASTER.—Now I have here a bill of particulars of June 6, 1922, and I have found the one you referred to of August 18, 1922. Then on the other side are the blue-prints A and B of defendants' machines, filed April 17, 1922, and the affidavit of Henry L. Guenther re bill of particulars filed June 1, 1922, and defendants' bill of particulars of December 2, 1922.

Mr. BLAKESLEE.—When I take up the defendants' list those [78] can be easily checked.

Now the next is a bill of particulars furnished by plaintiff August 16, 1922. That is the one, evidently, dated the 18th. It was served on the 18th and I presume was filed on that date. Has your Honor found that one that was dated the 5th of June?

The MASTER.—Yes.

Mr. BLAKESLEE.—That is the plaintiffs' list. Now the defendants'—and Mr. Townsend can probably check these as I go through them.

Mr. TOWNSEND.—The Master has just called off mine.

The MASTER.—I gave them all, I think.

Mr. BLAKESLEE.—Well, there may be some others (examining papers). Defendants' Exhibit "A" is that print you have, your Honor. The MASTER.—"A" and "B."

Mr. BLAKESLEE.—Yes. Then defendants' bill of particulars pursuant to order of Court made October 2, 1922.

The MASTER.—That is here.

Mr. BLAKESLEE.—Affidavit of Henry L. Guenther re bill of particulars, upon which we largely rely, dated the 27th day of May, 1922.

The MASTER.—Yes.

Mr. BLAKESLEE.—I think that completes it. There are no remainders over there?

The MASTER.—No; that is all. Now, Mr. Townsend, will [79] you proceed to finish your opening statement?

[93] Mr. BLAKESLEE.—I have not heard from Mr. Townsend as yet [94] as to what his desire is with regard to the stipulation concerning the Master's fees, and I think, with due deference to the Master, we ought to have that ascertained and stipulated, if we can, before he spends many more hours on this reference.

Mr. TOWNSEND.—Your suggestion of yesterday was perfectly satisfactory to defendants, and I suggest that this proposed stipulation you have submitted be copied into and made a part of the record.

The MASTER.—Yes. There is one blank in there, and my suggestion was that that be filled in with \$250.

Mr. TOWNSEND.—Yes.

(The stipulation above referred to is as follows:)

"It is stipulated by the parties upon the reference of this matter to Charles C. Montgomery as Special Master that the fees or compensation of the Special Master, at the rate of \$50.00 per day shall be advanced one-half each by the plaintiffs and defendants as the Master shall direct; said fees or compensation to be subject to approval and confirmation by the District Court and to be taxed by the District Court; each party hereto depositing with the Special Master at this date the sum of \$250.00 to apply on account of said compensation and fees.

It is further stipulated that the per diem fees, at the rate of \$10.00 per day, shall be paid to the stenographic reporter who shall be appointed by the Special Master, said [95] reporter's per diem fees to be paid upon bills from the said reporter in equal amounts by the parties and thereafter taxed as aforesaid.

It is further stipulated that the transcript of the proceedings shall be written up from day to day by the reporter and filed with the Special Master as a part of the records and files in this proceedings, and that the bills of the said reporter for said transcript shall be divided equally between the parties and paid by them at the usual and customary rate prevailing in the District Court, said expense to be taxed by the District Court upon the hearing of the Special Master's report. This provision applying only to the original transcript filed with the Special Master; it being understood that each party shall pay for its own carbon copy, if any be ordered."

[98] Now the term "spinning" means turning on its axis, and that word "spinning" must be applied as practical requirements make necessary. [114] 811 Washington Building.

Los Angeles, California, Friday, December 22, 1922, 2:00 P. M.

Parties met at the office of the Special Master and proceeded at once to the plant of the Pacific Closing Machine Company, No. 324–6 San Fernando Avenue, Los Angeles, where, beginning at 2:30 o'clock P. M. (the following being present: The Special Master; Raymond Ives Blakeslee, Esq., counsel for plaintiffs; Charles E. Townsend, Esq., counsel for defendants; Mr. R. S. Berry, plaintiffs' expert; Mr. J. M. Abbett, defendants' expert; Mr. J. W. Weber, demonstrator and machinist of the Pacific Closing Machine Company, and the Reporter) the following proceedings were had:

An examination and discussion by parties above noted as present was had of a machine of plaintiffs' bearing the number D-233 upon the flange of the can-feed mechanism.

Mr. BLAKESLEE.—The said machine is offered in evidence as Plaintiffs' Exhibit 4, to remain constructively in the custody of the Master for all purposes of the proceeding on the reference to him as he may direct; and in connection with this offer the Pacific Closing Machine Company, through its Mr. A. G. Sumner, is enjoined to maintain said machine as far as within his control is possible in its present assembled condition until released by the Master or the Court.

Mr. TOWNSEND.—The receipt in evidence or consideration [115] of this machine is objected to on the grounds that it is manifestly so far a
departure from the patents in suit as not to be illustrative of said patents; and, further, as not showing any commercial use or commercial success of these patents or any of them, even though it is offered as such; and for the reason that it is such a departure from the so-called patented constructions represented by the patents here in suit.

Mr. BLAKESLEE.—In response we say that the machine speaks for itself in comparison with the patents.

The MASTER.—It will be received.

(Whereupon, at four o'clock P. M., the parties proceeded to the plant of the Angelus Sanitary Can Machine Company, No. 4900 Pacific Boulevard, Los Angeles, where (the following being present: The Special Master; Raymond Ives Blakeslee, Esq., counsel for plaintiffs; Charles C. Townsend, Esq., counsel for defendants; Mr. R. S. Berry, plaintiffs' expert; Mr. J. M. Abbett, defendants' expert; Mr. R. V. Augenscen, demonstrator and machinist of the Angelus Sanitary Can Machine Company, and the Reporter) the following proceedings were had:

An examination and discussion by parties above noted as present was had of a machine of defendants'.

Mr. BLAKESLEE.—The machine is offered in evidence as Plaintiffs' Exhibit 5, to remain constructively in the custody of the Master and to remain in condition as at the present time, subject to the order of the Master or the Court. [117] 514 Post Office Building.

Los Angeles, California, Thursday, January 4, 1923, 10:00 A. M.

The MASTER.—Do counsel desire a statement from the Master as to the mechanism reviewed by him at the plants of the plaintiff and the defendant?

Mr. TOWNSEND.—Are the remarks you are about to make based upon notes you made at the time, or are you just speaking of your recollection of events?

The MASTER.—Partly from notes made at the time, and partly from my recollection of events.

Mr. TOWNSEND.—I was wondering if you made a memorandum at the time.

The MASTER.—I did on the following day.

Mr. BLAKESLEE.—We feel that the machines speak for themselves, plaintiffs' machine having been offered, and the defendants' machine likewise offered in evidence. As to the latter machine it has been suggested that the offer be withdrawn and that a re-offer be made after a further visit to defendants' plant, which we understand will be subsequent to a going over of the machine to put it in perfect running order and condition. Of course we welcome any statement the Master may wish to make as to these machines, especially if memoranda were made at the time to support such statement; [118] but we do not suppose that the Master will attempt to state all his recollections or that the record of such recollections made by such statement will be deemed to be all that the Master saw or all that the Master thought, and if that be the situation we believe that remarks by the Master as to his observations may well be made of record.

The MASTER.—The only purpose of making the suggestion was in order that counsel could see to what extent the Master understood the mechanism. It might well be that there will be some glaring error which would carry on through the case until the very end, whereas if you were aware of the error you could correct it at once.

Mr. TOWNSEND.—That, I appreciate, of course, is a very commendable purpose of your making a statement at all at this time. As I understood, the purpose of the rather unusual procedure of our starting to view the machines before any evidence was taken was that it was simply in the nature of an opening statement, as it were, so that the Master might perhaps understand the issues more clearly in his own mind. I do not suppose the Master would take to himself the expert knowledge of an experienced man in this art, but you naturally wanted to see what these machines that we were going to talk about so much looked like, and in recording your observations at this time I do not presume it will be accepted as evidence but merely as a clarification of your views and addition to your own knowledge on the [119] subject.

The MASTER.—Solely for that purpose.

Mr. BLAKESLEE.—I think the record might well show that my recollection prompts me to state as a fact—and I wish to be corrected if I am mistaken—

Mr. TOWNSEND.—Now, I do not think it is proper for counsel to offer any suggestions at this time or appear as a witness. We are going to take evidence on these matters.

Mr. BLAKESLEE.--Now, I do not wish to be interrupted. I am not going to refer to structure at all; but I think the record should show the approximate amount of time we spent at those plants, and my recollection is that we spent at least an hour and a half in inspection and discussion of the machine at the plaintiffs' plant, and probably twenty minutes at the defendants' plant. If those figures are not correct, possibly the Master can more accurately state what the time was; but I think the record should show that a considerable time was consumed, particularly at plaintiffs' plant. This practice of visiting plants and inspecting machines is well established in this Court and has been followed by Judge Trippett several times in cases in which I have been counsel, and the obvious purpose, I think, is to familiarize the Court with the things that are being talked about in the case. Now, if the amount of time I have stated is not accurate, I think possibly someone-

The MASTER.—We arrived at the first plant at 2:30 o'clock [120] and adjourned at 4; and I think about twenty minutes is what we spent at the second plant.

Mr. BLAKESLEE.—Yes.

vs. Ray O. Wilson et al.

The MASTER.-Now, at the Pacific Closing Machine Company a can-topping and sealing machine was already assembled and attached to a power belt. This commercial device was explained by Mr. Webber, who was, I believe, an employee of Mr. Wilson. It consists of three disks and two turrets. The first disk, as I understand it, is not a part of the patent. Then there is a revoluble disk with a center rubber heel the circumference of which was cut into four segments and was explained to be the timing device for the carrying of the cans on to the second disk, which is a device of the same character as in the first patent introduced, or what might be called the feeding disk. The feeding disk revolves at the same rate of speed as the first disk, and at the center of the feeding disk was a star wheel with four arms. This takes the place of the rubber wheel of the first patent-

Mr. TOWNSEND.—Pardon me, your Honor. That expression may be desirable to the defendant or may be undesirable, but I believe you should—

The MASTER.—I mean it is in the same location as the rubber wheel. I did not mean as a mechanical equivalent.

Mr. TOWNSEND.—I don't think any of us is competent to express that just at this moment, and if your Honor would [121] confine yourself to the physical things and facts I think it would be better—and I say that, of course, in the kindliest spirit of suggestion.

The MASTER.—Yes.

Mr. BLAKESLEE.---I understand the statement

is amended to the extent of saying that the star wheel occupies the position in the machine which the rubber wheel does in the patent Exhibit 1. Is that correct?

The MASTER.—That is what I meant. Now, the star wheel seems to perform a double function. And, incidentally, any of the statements I make are not arbitrary at all, but subject to correction by the experts, and I may change my whole view of it after hearing evidence.

Mr. BLAKESLEE.—And subject to such further observation of the machines as the master may deem wise.

The MASTER.—Yes. This double function is: first, if a can is fed too fast on to the feeding disk the outside curve of one of the arms will retard the movement of the can forward; and, second, if one of the cans comes in front of the tip of the rubber wheel it will accelerate its motion so as to have it come in front of the timing device coming up through the slots in the floor of the disk. Now, the timing device moves the can forward to the third disk, and there the can passes under a top feeding device, and as it passes in the passageway, it moves a finger which releases a cam wheel attached to a rod to operate a mechanism to allow a [122] can top to fall over the can. The can top proceeds in grooves above the can until the can is raised on to the stand of the seaming machine proper in one of the turrets. At that point the top comes down and an encircling device begins to seam the can's top edge with the can top circumference. In this first

turret the can revolves one and one-fourth times, and is then passed to a second turret—

Mr. BLAKESLEE.—Allow me to interrupt a moment. Might that be amended—I think Mr. Townsend will agree—to say that the can revolves on its own vertical axis, to distinguish from the revolution which is given with the turret? Isn't that correct?

The MASTER.—That is correct. In the second turret it goes onto a platform which does not revolve on its own axis but is carried around to discharge the can, and while so being moved rollers encircle and iron the seam. The mechanism, considered as a whole—

Mr. TOWNSEND.—If your Honor please, do you not recall that in the second turret the can revolves also, and the seamers are stationary?

The MASTER.—No, I don't observe the can revolving in the second turret.

Mr. TOWNSEND.—The can in plaintiffs' machine spins at all times on both turrets.

The MASTER.—I did not so understand it. The turret was absolutely quiet, as I recollect it; there was no movement [123] of the can whatsoever. But that is a matter we can see hereafter.

Mr. TOWNSEND.—Now let us have that straight, because the plaintiffs can easily correct that if we are in error.

The MASTER.—What does the plaintiff say with respect to that disk? What do you say, Mr. Berry?

Mr. BERRY.—Yes, the can is spun on the second turret.

Mr. BLAKESLEE.—I would suggest that all statements made to the Court be made by counsel, to avoid confusion. Let the experts speak to the Court through counsel.

The MASTER.—Now there is a matter that shows the advantage of this opening statement. I have very clearly in mind that that station on which the can stood simply passed around without any revolution whatsoever.

Mr. TOWNSEND.—The chuck mechanism is continuously revolving in both cases, on both turrets.

The MASTER.—Well, these notes were made the day afterwards.

Mr. TOWNSEND.—Well, I believe plaintiff is willing to concede that.

Mr. BLAKESLEE.—Oh, yes, there is a revolution of the can on its vertical axis in the second turret during the rolling down of the seam.

The MASTER.—Yes. The mechanism considered as a whole, and the general mode of operation, is, first, can-feeding disk with a track of parallel strips for carrying and advancing [124] the can to a second disk or wheel with spaced apertures to receive same and pass it under the can top feeding device. It then goes into a first turret, where the first seaming operation is performed, and from there is passed to the second turret where the ironing of the seam is performed, and is discharged.

Mr. BLAKESLEE.—May I ask if the Court wishes to add to that statement from his recollection the transfer member between the two turrets, which rotates and passes the cans from the first turret to the second?

The MASTER.-Well, I have a recollection of it, but I couldn't describe it very clearly. Now that is as far as I have any notes. I wish also to add that the two experts and myself, after advising counsel that we were going-but counsel being otherwise engaged did not get the advice-proceeded to the Los Angeles 'Can Company's place across the street, and there we observed a can top feeding machine of the old type which seemed to more nearly resemble the patent drawings-I don't know just what they call the mechanism, and they had one of these old machines there with a chute which carried the cans down to feed onto the feeding disk. We only spent a few moments there and then proceeded over to the shop where my recollection of the mechanism now is so confused that I would not care to go into it.

Mr. TOWNSEND.—I suggest that you delay comment on the visit to the defendants' plant until we have had a chance to [125] go out again.

The MASTER.—Yes. I say, I couldn't tell you definitely about it at all now, except I have an idea of moving figures, and moving the cans along, revolving at different spots and at different times and so forth.

Mr. TOWNSEND.—Do you recall the distance apart the two plants were located—the plants of plaintiff's and defendant's?

The MASTER.—I would say about seven miles.

Mr. BLAKESLEE.—Of course if counsel wishes

to inspect the machine which the Master has referred to as having seen across the street at the Los Angeles Can Company's plant I think that can probably be arranged so that counsel can see exactly what the Master saw.

The MASTER.—I might suggest that I would like to see that machine that I saw across the street there again. Also we went into the rear of the Los Angeles Can Company's plant in order to get the geographic relationship of the plaintiff's and defendants' plants, Mr. Guenther's old place of business, being located right there in the rear of the Los Angeles Can Company's plant, the office being upstiars in this large, old building that we observed.

Mr. BLAKESLEE.—Which was the building then of the Los Angeles Can Company, as I understand. Was that the impression that you got?

The MASTER.—Yes, I understood it was a part of the present [126] plant, and also that Mr. Wilson had been engaged as an employee of Mr. Guenther for two and a half years at the old plant.

Mr. BLAKESLEE.—I will ask Mr. Ray O. Wilson to take the stand.

TESTIMONY OF RAY O. WILSON, FOR PLAINTIFFS.

RAY O. WILSON, called as a witness on behalf of the plaintiffs, having been first duly sworn, testified as follows:

Direct Examination.

(By Mr. BLAKESLEE.)

Q. Your name is Ray O. Wilson? A. Yes, sir.

Q. You are the Ray O. Wilson who is the plaintiff in the present suit? A. Yes, sir.

Q. And you reside at Los Angeles?

A. Yes, sir.

Q. And what is your present business or occupation?

A. Manager of the Pacific Closing Machine Company.

Q. What is the general business of that Company?

A. Building closing machines, of the type of the Pacific machine, large and small.

Q. Those machines you refer to as closing machines, what is their function?

[127] A. Putting the tops and bottoms on tin cans—sanitary cans.

Q. And you sell those machines to the trade?

A. Yes, sir.

Q. You are one of the parties mentioned, are you, of the parties in suit, Plaintiff's Exhibits 1, 2, and 3, as being one of the patentees of those patents?

A. Yes, sir.

Q. Do you know of your own knowledge whether the parties named on those patents, Exhibits 1, 2, and 3, are still the owners of the interests set forth on the faces of the patents?

Mr. TOWNSEND.—That is objected to as not calling for the best evidence.

Mr. BLAKESLEE.—It calls for yes or no.

The MASTER.—Anwer yes or no.

Mr. TOWNSEND.—Exception.

A. Yes.

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(Testimony of Ray O. Wilson.)

Q. (By Mr. BLAKESLEE.) Do you know? [128] A. Yes.

Q. Please state whether or not the persons named on the faces of said patents, Exhibits 1, 2, and 3, are still the owners of the interests expressed on those patents?

Mr. TOWNSEND.—Same objection. It doesn't call for the best evidence, but the expression of a legal opinion.

The MASTER.—The objection is sustained.

Q. (By Mr. BLAKESLEE.) Do you know whether any transfer of any such interest or part thereof has been made by any of the parties named on those patents as patentees?

A. There have been assignments made to Mr. Stetson at the time that the patents were applied for.

Q. Have any assignments been made, to your knowledge, since the issuance of the patents?

A. No.

Q. (By the MASTER.) Are these parties all alive? A. Yes.

Q. (By Mr. BLAKESLEE.) I hand you a paper purporting to be an agreement entered into on the 20th of December, 1919, by and between—

Mr. TOWNSEND.—Just a moment. Don't try to construe the paper.

The MASTER.—He is simply trying to identify it.

Mr. BLAKESLEE.—Yes.

Q. (Continuing.) —By and between Franklin F. Stetson, Arthur D. Sumner, and Ray O. Wilson, parties of the first [129] part, and E. W. Bliss Company, party of the second part, and bearing those names among the signatures, and ask you if the name Ray O. Wilson appearing among the signatures is your name (handing document to witness).

A. Yes, sir.

Q. Did you execute that agreement?

A. I was intrumental in doing so. I made a trip back East—

Q. No, but did you sign that agreement?

A. Yes.

Q. On the day mentioned? A. Yes.

Q. Please tell us who the E. W. Bliss Company is.

Mr. TOWNSEND.—That is objected to as irrelevant and immaterial. The paper must be the best evidence of its own contents.

A. It is a corporation in New York. A corporation located in Brooklyn, building canning machinery and all kinds of large presses, and at one time, torpedo manufacturers for the Government.

Q. (By Mr. BLAKESLEE.) Have you relations at the present time with E. W. Bliss Company?

A. Yes, sir, through that contract.

Q. What is the nature of those relations?

A. A royalty agreement for the eastern territory, around Michigan—

[130] Q. And they pay you royalties to-day?

(Testimony of Ray O. Wilson.)

Mr. TOWNSEND.—That is objected to as irrelevant and immaterial.

A. Yes, sir.

Mr. BLAKESLEE.—Showing the adoption of the invention.

The MASTER.—You haven't shown what the royalty agreement is for yet.

Mr. BLAKESLEE.—Well, the agreement specifies that, and I don't want to put an interpretation on the agreement.

Mr. TOWNSEND.—Is this agreement counsel asks you about still in force, or is it some other royalty agreement that you speak of?

Mr. BLAKESLEE.—I will get to that.

Q. Is this the only agreement in effect between you and the other parties who signed the agreement last handed you and the E. W. Bliss Company, to your knowledge?

A. There is a separate agreement made on the payment of the royalties to Mr. Stetson for some foreign countries, and an agreement between Sumner and I as to royalty for some foreign countries, other than the United States.

Mr. TOWNSEND.—Unless the agreement is produced, your Honor, I move that the testimony go out.

The MASTER.—It will be received subject to its production.

The WITNESS.—That is a supplemental agreement, though, to the main one. That (other document) is the main one.

[131] Q. (By Mr. BLAKESLEE.) Is this agreement which you have just identified as to the signatures still in force and effect as to all parties?

A. It is.

Q. And are you and the other parties of the first part receiving royalty payments from the E. W. Bliss Company pursuant to that agreement?

A. We are.

Q. How long have you been receiving those royalties?

A. Approximately—the first royalty was paid in October, 1920. Around there. It may be later. It may have been in January.

Q. Have the royalties provided for in such agreement been regularly paid to the parties of the first part? A. Yes.

Q. Is that concern, E. W. Bliss Company, a large or small concern, if you know?

Mr. TOWNSEND.—That is objected to as irrelevant and immaterial.

Mr. BLAKESLEE.—It is to show the extent of the adoption of the invention.

The MASTER.—The objection is overruled.

A. It is a large concern.

Q. (By Mr. BLAKESLEE.) Have you visited its plant? A. Yes.

Mr. BLAKESLEE.—We offer in evidence the agreement just [132] identified and referred to by the witness as Plaintiff's Exhibit 6.

Mr. TOWNSEND.—It is objected to as incompetent, irrelevant and immaterial.

(Testimony of Ray O. Wilson.)

Mr. BLAKESLEE.—My purpose is to show the adoption of the invention, and the agreement refers to the patents in suit, on its face, and the license therein given as expressed on the face of the agreement refers to those inventions of the patent in suit. It is for the purpose of showing the adoption and commercial use of the invention.

The MASTER.—It will be received. The objection is overruled.

Mr. TOWNSEND.—Exception.

Q. (By Mr. BLAKESLEE.) To what extent, to your knowledge, have can closing machines made by your Company or your licensee, E. W. Bliss Company, been placed in the canning industry?

Mr. TOWNSEND.—Now, if books are kept they will show this information accurately, your Honor, and that would be the best evidence, unless this gentleman can show that he has taken the figures he is going to refer to off the books and knows about their authenticity.

Q.(By the MASTER.) Do you know the general extent, Mr. Wilson?

A. Why, it is somewhere around—

Q. Do you know it yourself?

A. No. We know as to the machines we have built, and we [133] can't tell exactly the number of machines made by the E. W. Bliss Company becanse we haven't the last date.

[134] Q. (By Mr. BLAKESLEE.) Confine yourself to your own knowledge, Mr. Wilson, and tell us where and to what extent these machines: (Testimony of Ray O. Wilson.) have been placed, as far as you know, by either your company or the E. W. Bliss Company.

A. Well, of course it will not be an accurate statement at all, but I know of seven machines that went to Italy, and five or six have gone to Great Britain, one or two to France, approximately thirty-five or forty around the district of Baltimore,—and of course they would be sent out by the can factories to outlying districts, and—

Mr. TOWNSEND.—That is hearsay.

A. (Continuing.) —and several around New York City. Around here we have 104 machines have been built, and approximately 80 of them are out giving service; 23 in the Hawaiian Islands, one in New Zealand, eight of them in Alaska, and the majority of the rest of them are around in Southern California.

Q. (By Mr. BLAKESLEE.) Were you present at the shop of the Pacific Closing Machine Company on the 22d of December last year—namely, last month—when the Special Master and counsel and others visited that shop and examined a machine there? A. Yes.

Q. Do you know which machine was examined by the Special Master and counsel and others mentioned? A. Yes.

[135] Q. Are you familiar with the construction of that machine? A. Yes.

Q. Can you state whether or not the construction of that machine agrees, in the main, with the

(Testimony of Ray O. Wilson.)

machines which have been put out to the canning industry in accordance with your recent testimony?

Mr. TOWNSEND.—That is objected to as calling for a conclusion of the witness.

Mr. BLAKESLEE.—I am simply trying to show the machines the plaintiffs have put out.

The MASTER.—It is a general question, and I think it may be answered.

A. It does.

Q. (By Mr. BLAKESLEE.) Of the same general type? A. Of the same general type.

Mr. TOWNSEND.—That is open to the same objection, your Honor.

The MASTER.—You can interrogate him on cross-examination about that.

By the way, it just comes to my mind about that second turret spinning. I do remember now that it was spinning. It was the defendants' commercial machine; he had the stationary first turret, and I confused them in my recollection in the statement I made.

[136] Q. (By Mr. BLAKESLEE.) I hand you a number of publications and ask you to refer to same and state in regard to each one, whether, to your knowledge, it is an issue of a publication generally distributed in the canning trade and of which you received a copy in accordance with such general distribution; and in connection with each one, where you can so state, refer to any matter by page or mark which refers to the distribution and the use of canning machines such as you have tes-

tified to, to wit, those placed with the canning trade and industry by your company and the E. W. Bliss Company.

Mr. TOWNSEND.—In the first place, that question is not only multifarious, but it is leading in several respects. More than that, this is an attempt to foist hearsay testimony on the Court by referring to self-serving advertisements.

[137] Q. (By Mr. BLAKESLEE.) Please identify these publications if you can, to wit, that they were publications which, to your knowledge, were distributed publicly, and then point out in each any printed matter referring to the machines of the plaintiff or E. W. Bliss Company.

Mr. TOWNSEND.—Now, that is again leading. Why not ask "What steps has your company taken to advertise your machine, [138] and have you the advertising matter before you? If so refer to the page and number."

The MASTER.—Well, answer Mr. Townsend's question.

• Mr. BLAKESLEE.—I accept the question as stated.

The WITNESS.—Do you want the ones out the date and the magazine?

The MASTER.—Yes. What have you there?

A. This is "Canning Age" of February, 1922. We take this magazine. It is a regular magazine gotten out in New York City.

Q. (By Mr. BLAKESLEE.) Now, what is the page?

(Testimony of Ray O. Wilson.)

A. Page 47 is the beginning of E. W. Bliss' advertisement, and they end up on page 50, the last of their advertisement, showing a battery of Bliss 81 Double Seamers in the cannery of the Hawaiian Pineapple Company of Honolulu.

Mr. TOWNSEND.—Now, that is not an answer to the question in the first place. And, in as much as he did not put in that ad himself, let the Bliss Company have somebody here to testify to what their advertisement was.

The MASTER.—Well, it is some advertisement in a trade paper and will be taken for what it is worth.

Mr TOWNSEND. — What comes under his knowledge is another thing.

He can say portrays plaintiff's machine, whether made by the company plaintiff or whether by its licensee.

A. (Continuing.) This advertisement covers 18 machines out [139] there in a line, of which only 6 of them were built by the E. W. Bliss Company.

Mr. TOWNSEND.—Now, I object to that as hearsay. The document itself is the best evidence of its contents, but it is not admissible, as hearsay.

The WITNESS.—I have seen these machines myself.

Q. (By the MASTER.) Now, what have you there?

A. A trade paper; and on page 73 is an advertisement of the Southern Can Company headed

"Noteworthy Double Seamer Development." It just goes through and explains—

Q. (By Mr. TOWNSEND.) Now, is that an advertisement of your company?

A. The Southern Can Company of Baltimore.

Q. (By Mr. BLAKESLEE.) Is it a machine furnished by you?

A. It is a machine furnished by the E. W. Bliss Company to them.

Mr. TOWNSEND.—I object to it as hearsay.

Mr. BLAKESLEE.—Our purpose is to show that that—the issue has been raised directly in the answer that this machine is not an invention, and so forth, and is not of value, and so forth.

The MASTER.—Are you offering to show utility and invention?

Mr. BLAKESLEE.—To show utility, value, and adoption of the invention, and the distribution of it to the trade, taken in conjunction with other testimony as to the number [140] of machines he has placed in various parts of the industry.

Q. Now leave out any advertisement which you do not know is an advertisement of the machine of the Pacific Closing Machine Company or the E. W. Bliss Company and then answer accordingly. Refer to the date of each magazine as you go along.

Mr. BLAKESLEE.—I will offer all these in a group.

[141] A. Sometimes the Bliss Company carry our advertisements, and sometimes they don't carry an advertisement of our machines. They have a

large variety of canning machine equipment and they carry a series of advertisements. This is August, 1922, "Canning Age."

Q. Now, is that a magazine of which you have received copies?

A. It is. On page 55 is our advertisement, of the Pacific Closing Machine Company. Now, in February, 1922, in "Canning Age," page 9. This is the magazine I referred to a while ago. On page 89 is our advertisement, Pacific Closing Machine Company.

Q. Is that a magazine which has been generally distributed to the trade to your knowledge?

A. It is.

Mr. BLAKESLEE.—The two magazines just identified and discussed by the witness, to wit, "Canning Age" of August, 1922, and February, 1922, are offered in evidence, respectively, as Plaintiffs' Exhibits 7 and 8, the offer being confined to the matters pointed out and designated by the witness. The August issue is Exhibit 7 and the February issue is Exhibit 8.

Mr. TOWNSEND.—Said exhibits are objected to as incompetent, irrelevant, and immaterial, self-serving, and hearsay.

The MASTER.—The objection is overruled.

Q. (By Mr. BLAKESLEE.) Have you taken steps to circularize [142] the canning industry or put before the canning industry printed matter concerning the structure and purposes of can closing

machines manufactured by the Pacific Closing Machine Company? A. We have.

Q. Can you produce any such printed matter?

Mr. BLAKESLEE.—Witness produces three catalogs.

A. This is really only one catalog as an advertising medium. This (the other) is an instruction book to take care of the machine after it has been installed, for the benefit of the operator. And these are the same.

Q. What, then, are these two remaining catalogs or books, one of which is labeled "Type B Model 21" and the other of which is labeled "Instruction Book and Catalog of Parts for Type B Model 21"?

A. One is used as an advertising medium, and the other is used to take care of the machine after it is installed, to help the operator out.

Q. To what extent have you distributed or circulated these books to the canning industry?

Mr. TOWNSEND.—This whole testimony is objected to as incompetent, irrelevant and immaterial.

A. About 400 have been distributed.

Q. (By Mr. BLAKESLEE.) 400 of which?

A. 400 of the advertising catalog.

Q. And how many of the instruction book?

[143] A. One goes out with each machine.

Q. And that is true of the machines which you have testified to as having been sold, that is, the Pacific Closing Machine Company? A. Yes.

Mr. BLAKESLEE. — We offer these books in

(Testimony of Ray O. Wilson.) evidence, the catalog as Plaintiffs' Exhibit 9 and the Instruction Book as Plaintiffs' Exhibit 10.

Mr. TOWNSEND.—They are objected to as incompetent, irrelevant and immaterial.

The MASTER.—The objection is overruled.

[144] Mr. TOWNSEND.—I haven't raised the objection before because I didn't want to anticipate counsel, but I think in connection with all this examination it ought to be shown what connection there is between the Pacific Closing Machine Company and the plaintiffs here.

The MASTER.—He said he was General Manager of the Pacific Closing Machine Company.

Mr. BLAKESLEE.—Yes.

Mr. TOWNSEND.—But what connection has the Pacific Closing Machine Company with the L. A. Can Company? The Pacific Closing Machine Company is not a party to this suit.

Mr. BLAKESLEE.—He is manager of it and making these machines, making the machines that the Master inspected. I will connect that up.

Mr. TOWNSEND.—That doesn't reach the objection I raised.

Mr. BLAKESLEE.—But I don't want to put a question that calls for a conclusion as to whether the plaintiff is making the patented machine.

Mr. TOWNSEND.—But what has the Pacific Closing Machine Company got to do with the L. A. Can Company or Mr. Sumner or Mr. Stetson?

Mr. BLAKESLEE.—He has testified what it has to do with him. He is manager of it and he is

plaintiff, but I will ask him about it: What connection, if any, has Mr. Arthur D. Sumner, one of the plaintiffs in this case, with the Pacific Closing Machine Company?

[145] A. He is one of the directors and stockholders.

Q. Does he take an active part in the management or conduct of the business? A. No.

Q. What connection, if any, has Mr. Franklin F. Stetson, a plaintiff, with the Pacific Closing Machine Company?

A. He is the president and the largest stockholder.

Q. Does he take any active part in the direction of the business? A. He does.

Q. You and he together direct and operate that concern? A. That is it.

Mr. BLAKESLEE.—That will hook it up further.

Mr. TOWNSEND.—But that does't show any connection with the L. A. Can Company.

The MASTER.—Let's find that out.

Q. (By Mr. BLAKESLEE.) What, if any, connection exists between the Pacific Closing Machine Company and the L. A. Can Company, one of the plaintiffs in this case?

A. Nothing, only they are our biggest customers.

Q. (By the MASTER.) The L. A. Can Company makes machines, doesn't it? A. No.

Q. (By Mr. BLAKESLEE.) The Can Company makes cans, does it not? A. Yes, sir.

[146] Q. (By the MASTER.) And used your machine? A. That is it.

Q. (By Mr. BLAKESLEE.) Mr. Stetson, one of the plaintiffs, and president of the Pacific Closing Machine Company, is an officer of the L. A. Can Company, is he?

A. He is president of it.

Q. How did you come to meet Mr. Guenther? defendant in this case?

A. Why I can't get the dates just exactly but it was somewhere around 1911 that I first went to work for Mr. Guenther.

Q. How did you come to meet Mr. Guenther?

A. Through Mr. Harrington, the die maker of the Los Angeles Can Company.

Q. What was Mr. Guenther doing then?

A. Manufacturing the double seamer, P-14.

Q. The machine known as P-14? A. Yes, sir.

Q. How many turrets did that machine have?

A. It didn't have what would really be called any turrets. It was a double spindle intermittent motion machine.

Q. Where was he manufacturing those P-14 Machines?

A. In a shop of the L. A. Can Company.

Q. That was located where it is to-day? A. Yes.

Q. Do you know what arrangement he had with the L. A. Can [147] Company for such manufacture? A. No, I do not.

Q. Other machines were being manufactured in that plant, were they?

A. There was a flanger, a can flanger, and what they called a dope machine.

Q. Were cans being manufactured there then?

A. In the plant of the Can Company.

Q. Of the L. A. Can Company? A. Yes, sir.

Q. Who was president of that company then?

A. I think Mr. Stetson.

Q. He was connected with it at that time, was he? A. Yes, sir.

Q. What was the nature of your services at that time?

A. I was acting in the capacity of lathe hand and milling machine hand and worked on the floor part of the time and run the planer part of the time?

Q. How long did you continue your connection with the L. A. Can Company?

A. I don't know. There was a split between the L. A. Can Company and Mr. Guenther shortly before I left there, a month or so.

Q. Of what year? A. Of 1914.

Q. Then what did Mr. Guenther do, to your knowledge?

[148] A. Went on the same way. I don't know about the organization, though.

Q. How long did he continue, to your knowledge, making machines like P-14 at that plant, the L. A. Can Company?

(Testimony of Ray O. Wilson.)

A. I couldn't tell exactly. It was either 1916 or 1917.

Q. Then what did he do, if you know?

A. Moved across the street.

Q. What was your next move?

A. February 10th I left Guenther and started building the machines covered by our patents.

Q. (By Mr. TOWNSEND.) February 10th when? A. 1914.

Mr. TOWNSEND.—I object to the statement, your Honor, as calling for a legal conclusion, the last part of the statement "covered by our patents."

Mr. BLAKESLEE.—That may be stricken out, strike out the words "covered by our patents."

Q. You say you commenced in that year working on can closing machines? A. Yes.

Q. Where did you commence that work?

A. Down at Smith, Booth & Usher's.

Q. In Los Angeles?

A. In Los Angeles on Central Street between Second and Third.

Q. Did Mr. Guenther have anything to do with your work [149] down there? A. No.

Q. Did he have anything to do with any of your work on those machines, or preparing for your work?

A. Yes, he did some planer work for us.

Q. Did he have any suggestions to make as to the construction of those machines or their mode of operation?

A. No. Mr. Guenther never saw the machine until it was finished and was installed in the Stetson Canning Company.

Q. What was the Stetson Can Company, and where was it?

A. A cannery right at the north side of the L. A. Can plant.

Q. On North Broadway?

A. On North Broadway. Well, no. On San Fernando Road.

Q. When was the machine put in there and used?

A. Sometime in August of 1914; August or September of 1914.

Q. Was it used there in closing cans containing food products? A. Yes.

Q. How long was it used?

A. I think approximately a year and then it was repaired and sent out to the V. K. Morgan Canning Company at El Monte, and was used there for one or two seasons, I don't know which.

Q. Did you apply for any patent on that machine? A. Yes.

Q. And what resulted from that application?

[150] A. I don't know the number of the patent but it is the large machine patent there, applied for on August 4th, I think, 1914, and allowed in 1916.

Q. I hand you copies of patents, exhibits 1, 2 and 3, and ask you if it is either of those that you refer to, and which?

Mr. TOWNSEND.—We object to any conclusions that he may draw as to whether or not that so-called 1914 machine is covered by the patent.

Mr. BLAKESLEE.—I didn't ask that. I asked him if he applied for a patent for it, and then what resulted.

Q. Can you pick out the patent?

A. It is patent No. 1,203,295.

Q. (By the MASTER.) Patent No. 3, or Exhibit No. 3? A. Yes.

Mr. BLAKESLEE.—This we call the Master's attention to as Plaintiffs' Exhibit No. 3, or the patent of the file wrapper so numbered as an exhibit.

Q. What steps did you next take regarding these can closing machines?

A. Well, we stopped operations for almost seven or eight months and then we installed some machine tools and a shop on the property of the L. A. Can Company and in that place I think we built 12 machines.

Q. When was that?

A. Approximately eight or nine months after installing of [151] the machines in the Stetson cannery, the first machine.

Q. That would be in 1915? A. Yes.

Mr. TOWNSEND.—That is leading. Let him testify to it.

A. I can't remember all these dates, though.

Q. (By Mr. BLAKESLEE.) When was the Pacific Closing Machine Company started?

A. The Pacific Closing Machine Company was incorporated June 19, 1921, I think.

Mr TOWNSEND.—The Articles of Incorporation would be the best evidence of that.

Mr. BLAKESLEE.—Yes, but I don't think it is very material. I am merely tracing the events.

Q. Between this time and 1914 and 1015, and the events of those years you have referred to, what did you do about these closing machines, if anything? What was the history of them?

A. We started in that little shop of the L. A. Can Company and I think we built 12 or 14 machines in that place, and then we moved across the street into larger quarters, and since then I think we have finished up the total number of approximately 104 or '5 machines.

Q. Do you mean up to the present date?

A. Yes.

Q. And have placed those with canners?

A. Not all of them. Eighty some of the machines are out.

Q. That have been placed with canners?

[152] A. Yes.

Q. And do you know whether they are in use to-day or not? A. Yes.

Mr. TOWNSEND.—That is calling for a conclusion.

Mr. BLAKESLEE.—I asked him if he knew. Mr. TOWNSEND.—I don't want hearsay.

A. I have seen nearly every machine that has

(Testimony of Ray O. Wilson.) been sold by the Pacific Closing Machine Company in operation.

Q. (By Mr. BLAKESLEE.) You have been recently to Honolulu, haven't you? A. Yes.

Q. And saw the machine, which you referred to, over there being operated? A. Yes.

Q. (By the MASTER.) Did any of them come back?

A. We have had two machines turned down.

Q. (By Mr. BLAKESLEE.) And what was the reason in each case?

A. One was a peculiar job that the M. J. Brandenstein Company of San Francisco had, a freak coffee can which was a hard job for us, and they didn't give us time enough, and therefore we come to cross roads and took the machine out.

Q. Was that a special job?

A. Yes, a special job.

Q. For what canning purposes have your machines generally been designed?

Mr. TOWNSEND.—What was the other machine that came back?

[153] Q. (By Mr. BLAKESLEE.) Yes, tell us about the other machine.

A. That was the California Packing Corporation of San Francisco.

Q. What was the trouble in that case?

A. I think it was a personal trouble more than it was a machine trouble, because they had their plant completely equipped with the Troyer-Fox and we tried to squeeze our machine in for a try(Testimony of Ray O. Wilson.) out and the result was it didn't get a very favorable reception.

Q. For what general purposes have your closing machines been designed and constructed? For what classes of work?

A. Mostly the canneries, for the packing of fruit and fish.

Q. Do you know of any instances in which your canning machines, and when I refer to them in that way I mean the canning machines you have told us about in your testimony, and those built by the Pacific Closing Machine Company—do you know of any instances in which your machines, or those machines, have replaced other canning machines? A. Yes, quite a few.

Mr. TOWNSEND.—That is objected to as incompetent, irrelevant and immaterial unless we know what the circumstances were.

The MASTER.—He is only asking as to his knowledge, and he has answered that he knows. Now, let us have the next question.

[154] Q. (By Mr. BLAKESLEE.) What do you know as to such replacements, specifying the parties concerned and the instances, and confining it to your knowledge?

Mr. TOWNSEND.—That is objected to as incompetent, irrelevant and immaterial. If they have proven to their satisfaction that they have got a commercial machine, irrespective of whether it is under the patent or not, that ought to be in evidence, but whether it is beyond—

(Testimony of Ray O. Wilson.)

The MASTER.—He can tell whether it displaced others. The objection is overruled.

A. Do you want all machines?

Q. (By Mr. BLAKESLEE.) Any instances you can recollect.

A. We replaced the Max Ams at San Diego with our machine and we have replaced the Angelus in quite a good many places, the 14–P, at Pomona, in the Golden State at Pomona—well, no, at Ontario.

Q. (By the MASTER.) Not at Pomona?

A. No. And the Golden State at Cucamonga.

Q. (By Mr. BLAKESLEE.) California?

A. Yes, California; and the California Growers at Ontario, Hemet and Riverside, California. And we have replaced the Troyer-Fox at Modesto at the California Co-operative Canners, and we have replaced some Angelus machines, how many I don't know, at the California Co-operative Canners at San Jose.

Q. (By the MASTER.) Which type?

A. The P–14.

Q. Not any of the P-24?

[155] A. No, although we had a contest at Pomona with the P-24.

Mr. TOWNSEND.—I object to any matter like that. We are talking about replacements, and I object to any self-serving statements like this.

Mr. BLAKESLEE.—He can state if there was anything that tended to a substitution or replacement.

The MASTER.—Well, a contest wouldn't help

us. They were scrapping all the way through, we will assume that.

Q. (By Mr. BLAKESLEE.) In this last instance did a replacement take place?

A. No, I think it was an addition, that our machine was an addition to their regular plant.

Q. And that plant contained a P-24, did it?

A. Yes, sir, for trial. Ours was likewise on trial.

Q. Was yours adopted and used and bought there?A. It was.

Q. (By Mr. TOWNSEND.) What was the name of that plant?

A. The Golden State Canning Company at Pomona.

Q. (By Mr. BLAKESLEE.) Are all of those points you have so far mentioned in the state of California? A. Yes.

Q. Do you recollect any other places?

A. The Max Ams was replaced with our machine by the E. W. Bliss Company around Baltimore in quite numerous cases.

[156] Q. In Baltimore, Maryland?

A. Yes, and here we replaced all of the machines in the L. A. Can Company with two exceptions, the P-14 with our machines.

Q. (By the MASTER.) Did the E. W. Bliss Company make machines to sell? A. Yes, sir.

Q. Have the E. W. Bliss Company made any for you?

A. They have. We were short once and they filled in on this Hawaiian order.

Q. (By Mr. BLAKESLEE.) Will you state whether the machines manufactured and sold by the E. W. Bliss Company agree in construction with the machines manufactured and sold by your interests and the Pacific Closing Machine Company?

Mr. TOWNSEND.—That, your Honor, is objected to as calling for the opinion of the witness.

Mr. BLAKESLEE.—He has been to both plants.

Mr. TOWNSEND.—But we haven't had a chance to examine him or find out anything about it.

The MASTER.—He asked him are they of the same type. Is that the question?

Mr. BLAKESLEE.—Yes.

Q. What is the answer?

A. They are the same type. There are a few changes in design from the construction standpoint to increase the output.

[157] Q. Did you have anything to do with the commencement of the manufacture of these machines by the E. W. Bliss Company?

A. Yes. I was there for two months at one time and for seven months at another time.

Q. What did you do?

A. Followed the machines through the shop and saw that they were all right. I was more or less in charge of the way the machines were put together.

Q. Did you have anything to do with the making of patterns for that construction? A. No.

Q. Tell us what differences, if any, exist in construction between the machines made by the E. W.
Bliss Company and those made by the Pacific Closing Machine Company?

Mr. TOWNSEND.—I think that examination is entirely irrelevant, your Honor.

Mr. BLAKESLEE.—I want to show they are putting out the same—

The MASTER.—He said he put out the same except in some minor particulars. Now if Mr. Townsend wants to bring it out on cross-examination, well and good.

Mr. BLAKESLEE.—All right. We will withdraw the question.

Q. You are familiar, are you, with the construction and mode of operation of the P-14 can closing machine of Guenther, the defendant?

A. Yes, sir.

[158] Q. How recently did you witness the commercial operation of one of those machines?

A. Last summer several times.

Q. Did you note the number of cans a minute it was closing and discharging? A. No.

Q. Have you at any time? A. Oh, yes.

Q. What was such number?

Mr. TOWNSEND.—That is immaterial unless we know what the circumstances were.

A. I have seen them run as high as 80 cans a minute in the fish cannery. That is the only one place I have seen them running that high.

Q. (By Mr. BLAKESLEE.) Have you ever known it to operate at a higher speed? A. No.

Q. What was the speed of operation of these

machines, or those you and your interests and the Pacific Closing Machine Company have sold, and in that connection I refer to the rate of operation in closing cans containing products.

Mr. TOWNSEND.—Your Honor, this man is presumed to be a manufacturer, and the rate of operation that he is asking for now varies under various conditions, and, until we know the qualifications of this witness to testify to such matters, and the conditions under which he has made observations, we [159] shall object to the statement as being a mere opinion and self-serving. We haven't any objection to having the truth brought out but we want it brought out on this particular point in a regular way.

The MASTER.—He said he had seen all of the can machines installed at various places. Did you see them operate?

A. Yes. At the time I spoke of the Angelus was going 80, and ours was running 138. Both of them were timed by my watch and I counted them.

Q. (By Mr. BLAKESLEE.) Where did that take place? A. At Wilmington.

Q. California? A. Yes, sir, California.

Q. In a fish cannery? A. Yes.

Q. When was that?

A. That was some time in the summer of last year.

Q. Have you observed the operations of the machines built and supplied by the Pacific Closing Machine Company, or your interests, at the various

places you have told us about, at the plants which you have told us about in your previous testimony?

A. Yes.

Q. And what did you note on those occasions as to the rate of operation of your machines in closing cans containing products?

[160] Mr. TOWNSEND.—What kind of products and where did this take place?

Mr. BLAKESLEE.—I asked him what he noted, and counsel can cross-examine.

The MASTER.—Yes. Tell us whether it was tomatoes or beans or soup.

Q. (By Mr. BLAKESLEE.) Yes, tell us all about it.

A. At the Hemet plant they were running apricots and peaches and the speed was 121 or '2, I think.

Q. A minute?

A. A minute. At the Golden State plants all of their machines ran around 60 cans per minute.

Q. What was being handled there?

A. Apricots and peaches. At the Co-operative Canneries in the north the machines were running from 90 up to 128.

Q. And what was being handled?

A. All kinds of fruits, apricots, peaches and berries.

Q. (By Mr. TOWNSEND.) What cannery was that? A. The Co-operative Canneries.

Q. Where?

A. At San Jose and Modesto and Visalia.

Q. (By Mr. BLAKESLEE.) What was the reason, if you know, for the relatively slow rate at the plant last previously referred to, where 60 was the speed?

A. On account of their cookers and exhaust boxes. The rest of the line did not have capacity enough for the [161] machine.

Q. Now proceed with your previous answer.

Q. (By Mr. TOWNSEND.) What kind of machines were making 60 at this Golden State?

A. Our machines.

Q. (By the MASTER.) The same kind of machines? A. Yes, sir.

Q. (By Mr. BLAKESLEE.) Now proceed further with your observations as to the operation of your machines and the rates of same.

A. At San Diego in the fish we ran them 140, I think. At Wilmington in the fish it was 138. In the can plant of the L. A. Can Company we ran them from 135 to 150. In the East they ran them 165 in the can factories.

Q. What did they can in the East?

A. Nothing. Those are factory lines, where it was 165.

Q. Those are machines for putting bottoms on the cans? A. That is right.

Mr. TOWNSEND.—Don't you want to correct your statement so as to avoid any misunderstanding as to the L. A. Can Company? Is the L. A. Can Company where they are running 135 to 150 on filled cans? A. No; empty cans.

Q. (By Mr. BLAKESLEE.) The L. A. Can Company is a can manufacturing concern, isn't it?A. Yes, sir.

[162] Q. Now proceed with any other or further observations that you have made.

Q. (By the MASTER.) Fish are not very sloppy, are they?

A. No. In the pineapple business in Hawaii they ran them from 80 to 90 cans per minute.

Q. (By the MASTER.) Is that syrup very thin? A. Yes.

Q. (By Mr. BLAKESLEE.) Canning pineapples is that?

A. Yes. In the fish business in the north, in the salmon business, they run them around 100 to 110, I understand.

Q. (By the MASTER.) You say "you understand."

A. I didn't observe those machines in the north. I never was there.

Q. (By Mr. BLAKESLEE.) What is it that controls or limits the rate of can closing operations in a canning plant?

A. The rest of the equipment, the filler, syruper, exhaust box and the cooker have all got to be of equal capacity to the machine.

Q. And do operations in such equipment account for the variations in the rate of can closing that you have told us about at these various plants?

A. Yes; and the fruit sometimes is slower cooking than others, and they have to slow it down.

(Testimony of Ray O. Wilson.)

Q. At how many plants approximately have you observed the can closing operation of P-14 Angelus machines?

A. Nearly all of those that have our machine today, nearly [163] all of them.

Q. That have 14-P machines?

A. Yes, except the Hawaiian people.

Q. The 14–P machines were supplied first, were they? A. Yes.

Q. (By the MASTER.) Let me ask you a question before I forget it: Does it make any difference as to whether the liquid is light or heavy in the speed with which you run the machine?

A. It does, yes.

Q. That is an element that you didn't mention.

A. It does.

Q. (By Mr. BLAKESLEE.) At any of those plants did you ever observe a can closing operation by a 14–P machine at a rate faster than 80 per minute, that you have referred to? A. No.

Q. Do you know whether these defendants are now making and selling the 14–P machine?

A. No.

Mr. TOWNSEND.—This witness has no knowledge of that. He is not employed by the defendant.

Mr. BLAKESLEE.—I asked him if he knew.

Q. Do you know? A. My answer was no.

Q. You do not know? A. No.

[164] Q. Have you seen any installations at any

cannery of 14–P Angelus, or defendants' machines,which you know to be recent installations?A. No.

Q. When to your knowledge was the last such installation that came under your observation?

Mr. TOWNSEND.—That is objected to as irrelevant and immaterial.

The MASTER.—He wants to show it supplanted 14–P, I suppose.

Mr. TOWNSEND.—But that is not the proper way to show it.

The MASTER.—He asked him when was the last time that he knew. Now for whatever it is worth it may be received.

Q. (By Mr. BLAKESLEE.) What is your answer?

A. Probably three years ago. Maybe not that long. I can't say for sure—at the Ontario plant.

Q. I hand you a paper, or wrapped package, tied up with a string, with some blue sheets protruding through a tear in the corner, and ask you if you know what the package contains, and where it came from? A. It is a set of our blue-prints.

Q. How did it come here, if you know?

A. I was asked to bring it up here.

ę

Q. Where did you find it?

A. That is a copy of a set that we had in our safe.

Q. At the plant on San Fernando Road?

A. Yes, sir.

[165] Q. (By Mr. TOWNSEND.) What plantis that? A. The Pacific Closing Machine.

Q. (By Mr. BLAKESLEE.) When did you take it from the safe? A. This morning.

Q. When was it put in the safe last?

A. December 1, 1920.

Q. Who put it there, if you know?

A. I can't recall, but either myself or the draftsman.

Q. Do you know it was put in there at that time?

A. Yes, sir, I know it was put in there at that time. I recall the day of putting it in there.

Q. And where was it last before it was put in the safe, if you know?

A. We got the set of blue-prints back from Mr. Guenther, and I think it was that same day, or the day before, that we put them in the safe, that is, we got them the day before, or that same day that we wrapped the bundle up, because it was a complete set of blue-prints and we checked them over, and put them in the safe as a precaution.

Mr. TOWNSEND.—Mr. Blakeslee, what is this mystery package you are inquiring about?

Mr. BLAKESLEE.—The package will be opened later and you can inspect what is in it.

Mr. TOWNSEND.—But you are following a line of mystery-making here.

Mr. BLAKESLEE.—There is no mystery in this. I am tracing [166] the history of this thing so there will be no break in it.

The MASTER.—Proceed, Mr. Blakeslee.

Q. (By Mr. BLAKESLEE.) You say these prints in this package came from Mr. Guenther?

A. Yes, sir.

Q. What do you know about that? How did they come?

A. The Can Company had asked Mr. Guenther to bid on building our machine, and they, having the right, came and got the blue-prints and delivered them to Mr. Guenther, sometime in July I think.

Q. Where were you at that time?

A. I was at the plant.

Q. Of the L. A. Can Company?

A. Of the Pacific Closing Machine Company.

Q. When was it that you first knew of or saw a closing machine made by defendant Guenther, or the Angelus Sanitary Can Machine Company, other than the 14–P machine?

A. It seems to me that was in July, or September 4th that we went out to Pomona, that I spoke of before. That is the first time I ever saw the machine.

Q. What year was that? A. 1921.

Q. This package which you have identified as being taken from the safe this morning, has it remained in the safe ever since it was put there, until the time you mentioned?

A. Yes, until this morning.

[167] Q. Please open this package and refer to the blue-prints and tell us what, if anything, you know about the making of those prints, or the tracings from which they were printed?

A. We have all the tracings and the making of the tracings was done by George McManus, a

draftsman we had for a couple of years, prior to July, 1921, or rather September, 1921.

Q. For what company did McManus, the draftsman, work?

A. For the Pacific Closing Machine Company. It was then the Stetson Machine Company.

Q. I understand, then, that the predecessor of the Pacific Closing Machine Company was the Stetson Machine Company? A. That is right.

Q. And when was that formed?

A. The Stetson Machine Company?

Q. Yes.

A. In 1915, I think, but I am not sure.

Mr. TOWNSEND.—The Articles of Incorporation would be the best evidence of that.

A. It was not an incorporation. It was a copartnership.

Mr. TOWNSEND.—Well, the Articles of Copartnership and the writing would be the best evidence.

Mr. BLAKESLEE.—Who were the copartners of that copartnership?

A. Mr. Stetson, Mr. Sumner and myself.

The MASTER—You better make your offer of these prints, and we will adjourn as it is 12 o'clock. Do you want to [168] offer these now?

Mr. BLAKESLEE.—Yes, but may I ask one preliminary question?

The MASTER.—Yes.

Mr. BLAKESLEE.—That business was started under that name shortly after the dozen machines were made, you say, in 1914 or 1915?

A. I can't say as to that. It started out as the Sumner-Wilson Company, a sort of a copartnership, and then at one time there—it must have been 1915 —we changed the name to the Stetson Machine Company. It was all a copartnership.

Q. To your knowledge were there any written articles of copartnership of either of those copartnerships? A. No.

Q. How many of those prints are there there?

Mr. TOWNSEND.—I was going to ask him to count them and let us know how many there are. Do you know how many there are there?

A. No, I do not.

[170] Mr. BLAKESLEE.—The prints just discussed by the witness as having been taken from the safe of the Pacific Closing Machine Company in the wrapper bearing date of "12–1–20" with the word "set" underneath, and the numeral "2," are offered in evidence, together with said wrapper, there being 134 of such prints, I think, in one group, as Plaintiff's Exhibit 11.

Mr. TOWNSEND.—Let me ask you, Mr. Blakeslee, what is the [171] object of this offer? I might be able to agree to it or then be in a better position to make an objection to it.

Mr. BLAKESLEE.—The offer is to lay the foundation for further testimony regarding the use of these prints by the defendant Guenther in connection with the development of the machines charged to infringe.

(Testimony of Ray O. Wilson.)

The MASTER.—In other words, he had them for five months.

Mr. BLAKESLEE.—Yes, anterior to the time when he built his first machine complained of.

Mr. TOWNSEND.—Well, this five months' stuff is purely gratuitous on the part of counsel and we shall resent any intimation of such kind carried by this offer

The MASTER.—We will receive them as the prints that were in Mr. Guenther's hands. Now, what he did with them I [172] suppose may be proved later.

Mr. BLAKESLEE.—That is the proof to date, and we will follow that by other proof.

[173] AFTERNOON SESSION—2 o'clock. The MASTER.—You may proceed, Gentlemen. RAY O. WILSON recalled.

Direct Examination (Resumed). (By Mr. BLAKESLEE.)

Q. Mr. Wilson do you now recollect since your testimony this morning, any other instance of replacement of any can-closing machine by machines of the Pacific Closing Machine Company?

A. Yes there are three more. The American machine was replaced by ours in the Hawaiian Islands. About 23 machines of ours were installed there, probably replacing twice that number of American machines.

Q. What do you mean by American machines? A. The Johnson; the J. type machine.

Q. Made by what company?

A. The American Can Company.

Q. Any other instances?

A. And the replacement of the Forry machine in the can plant of H. G. Prince & Company; and the 14–P, Guenther's machine, was replaced at the San Fernando Canning Company, San Fernando, California—four or five machines. Then we replaced the Max Ams machine at the V. K. Morgan Canning [174] Company at El Monte, California. That is all I know of positively.

Q. I call to your attention two further bundles of blue-prints, and taking up one of them first, will ask you what you know about it (handing same to witness).

A. It is the same as the smaller one (exhibit 11) only it is a different size blue-print, that is all. It went through the same process.

Q. Did you bring those prints here? A. Yes.

Q. Where did you get them?

A. Out of the safe of the Pacific Closing Machine Company.

Q. To-day? A. This morning, yes.

Q. What do these prints show, to your knowledge?

Mr. TOWNSEND.—The blue-prints are the best evidence of what they show.

Mr. BLAKESLEE.—Yes; strike that out.

Q. When were those prints put in the safe, if you know? A. December 1, 1920.

Q. And where were they previously, if you know?

A. They were brought back from Mr. Guenther's shop on the San Fernando Road.

Q. And do you know how he got them?

A. Mr. Stetson gave them to him.

Q. When?

[175] A. It was around in July or the first part of August, as I recall.

Q. Of what year? A. 1920.

Q. You mean Mr. Guenther, one of the defendants here? A. Yes.

Q. And has this bundle of prints been in that safe since that time? A. Yes.

Q. They were returned and put in the safe of your company at the same time as the 134 prints of Exhibit No. 11? Is that correct? A. Yes.

Q. I hand you these blue-prints and will ask you to count them.

(Witness counts same.)

Q. How many do you find? A. 76.

Mr. BLAKESLEE.—The roll of blue-prints last identified by the witness, consisting of 76 prints, with the wrapper which contained them and which bears the notations "12-1-20," the word "set" and the numeral "3" underscored, is offered in evidence as Plaintiffs' Exhibit 12.

Mr. TOWNSEND.—Same objection as made to Plaintiffs' Exhibit 11.

Q. (By Mr. BLAKESLEE.) I hand you another package of blue-prints [176] and I will ask you what you know about it.

A. They were taken from the safe of the Pacific

Closing Machine Company this morning, and were placed in that safe on December 1, 1920.

Q. Together with the package of prints of Plaintiffs' Exhibits 11 and 12? A. Yes.

Q. And where did you obtain them before they were put in that safe?

A. They were returned to us from the Guenther place by Mr. Stetson.

Q. Do you know how Mr. Guenther got them?

A. Mr. Stetson gave them to him.

Mr. TOWNSEND.—That is all calling for hearsay.

Q. (By Mr. BLAKESLEE.) Have these prints of this last bundle with the wrapper been in the safe since they were first put in there? A. Yes.

Q. Now, please count them.

(Witness counts same.)

A. I find 221.

Mr. BLAKESLEE.—The group of blue-prints just referred to by the witness, together with the wrapper in which they were contained, the latter bearing the notations "12–1–20," the word "set" and the numeral "1" underscored, are offered together as a single exhibit as Plaintiffs' Exhibit 13.

Mr. TOWNSEND.—Same objection as made to Plaintiffs' Exhibits 11 and 12.

The MASTER.—The objection is overruled.

Mr. TOWNSEND.—Exception.

[177] Mr. BLAKESLEE.—I might ask the witness one more question at this time:

(Testimony of Ray O. Wilson.)

Q. Mr. Wilson, referring to these groups of blueprints, Exhibits 11, 12 and 13, can you state whether the Pacific Closing Machine Company has constructed can closing machines and sold the same, such machines being built in the shop of that company, in accordance with and following the construction and combination of parts of these blueprints? Do you know that of your own knowledge?

Mr. TOWNSEND.—That is objected to as leading.

The MASTER.—Overruled.

A. Yes.

Q. (By Mr. BLAKESLEE.) That has been done? A. Yes.

Q. Under whose instructions were the tracings made from which these blue-prints of Plaintiffs' Exhibits 11, 12 and 13 were printed?

A. My own.

Q. Did you supervise the making of those tracings? A. Yes.

Q. From what data were such tracings made?

A. Some from former drawings, pencil drawings that we had. Others were new designs that were brought through. First we would make a pencil drawing and then the tracing.

Q. Did you make any of those pencil drawings?A. The original ones, yes.

[178] Q. Do you recollect when the original tracings were made? A. No, I do not.

Mr. BLAKESLEE.—That is all.

(Testimony of Ray O. Wilson.) Cross-examination.

(By Mr. TOWNSEND.)

Q. Mr. Wilson, you have produced and offered in evidence through your counsel three packages of blue-prints, in evidence as Exhibits 11, 12 and 13, Exhibit 11 containing, as I understand, 134 separate sheets, Exhibit 12, 76 sheets, and Exhibit 13, 221, making a total of 431 blue-prints. Now, is there any one of these 431 sheets of blue-prints an assembly of your machine, that is, either an elevation or plan showing what the machine would look like when it was set up? A. No.

Q. What are these 431 prints intended to represent?

A. The different parts and duplications of practically the same parts. Where different sized cans exist of course there will be duplications.

Q. In other words, each one of these blue-prints represent a single piece of metal that goes into your machine? A. That is it.

Q. One blue-print would be for a bolt at one place and another for a cam, another for a gear, another for a star wheel, is that correct? [179] A. Yes.

Q. And then for different sizes of cans you have also got different parts for that? A. Yes.

Q. And how many parts enter into one of your machines normally? A. I do not know.

Q. It would be such a number less than 431 as these blue-prints may be duplicated in places, is that right? A. Yes, that is right.

(Testimony of Ray O. Wilson.)

Q. You state that these blue-prints, 431 in number, were given Mr. Guenther some time in the past. Were any other blue-prints illustrating your machine, and I mean the machine of the Pacific Closing Company, ever given Mr. Guenther?

A. No, only for work that he did for us at different times. He did planing work for us, and that is as far as I can remember.

Q. I am only referring now to this particular machine. Of couse I know in your dealings there before that on the 14–P and other work that you undoubtedly gave him blue-prints from time to time.

Mr. BLAKESLEE.—The question is limited, of course, to the witness' knowledge?

A. I say that the blue-prints that were given to Mr. Guenther aside from these were for him to do work for us such as planing work. He planed up a set of bed plates for us.

[180] Q. On what machine?

A. Our own machine.

Q. You mean on this double turret machine you are selling? A. Yes.

Q. When did you give him those prints that he did that planing work from?

A. I guess around 1914 or 1915, somewheres around there. I think that he planed No. 2 and No. 3 machine bed plates for us.

Q. You mean the first two or three machines you built he did planing work for you? A. Yes.

Q. How did these blue-prints, Exhibits 11, 12 and 13, come into Mr. Guenther's hands in the first

place? You said Mr. Stetson took them to him. Why did Mr. Stetson take them to Mr. Guenther?

A. I think Mr. Stetson can answer that better than I can. He knows all the ins and outs of that deal and I had nothing to do with that practically, only handing over the blue-prints to Mr. Stetson.

Q. You testified somewhat fully here that Mr. Guenther had been given these blue-prints and you, or your counsel, left the inference that Mr. Guenther made improper use of them. Now, I want to get at the facts of how Mr. Guenther came to have them in his possession in the first place.

Mr. BLAKESLEE.—We object to the argumentative portion of [181] the question and the conclusion stated.

The MASTER.—That is no part of the question. Answer the question so far as you can.

A. Mr. Stetson said that the Can Company wanted to get bids from Mr. Guenther on our machine and he insisted on us allowing Mr. Guenther to have that full set of blue-prints.

Q. Who is "us"?

A. The Pacific Closing Machine Company. He was after me several times before I actually got the prints out for him, to give those prints to Mr. Guenther, and after I got them ready he gave them to Mr. Guenther.

Q. Mr. Stetson asked you, who were connected with the Pacific Closing Company, to let him have these blue-prints? A. Yes, sir.

(Testimony of Ray O. Wilson.)

Q. When did you say the Pacific Closing Company was organized? A. June, 1921.

Q. Why did the L. A. Can Company have Mr. Guenther figure on building these?

A. I don't know. I surmise, though, that a few of them thought they might be able—

Q. I don't want any surmises. Just stick to matters of your own knowledge. You say the L. A. Can Company wanted Mr. Guenther to do that, to bid on these. Did Mr. Guenther bid on them?

A. I don't know whether he did or not.

[182] Q. From your relationship with all of these parties don't you know positively that he didn't bid on them?

A. I do not know personally whether he did offer a bid on them or not.

The MASTER.—You don't know if he did bid on them? A. No.

Q. (By Mr. TOWNSEND.) Do you know why he didn't bid on them? A. No.

Q. How long were these blue-prints in Mr. Guenther's possession?

A. It would be guesswork for me to say.

Q. Well, I don't want guesswork. Do you know the date they were taken to Mr. Guenther?

A. It was either the latter part of July or the first of August, around in there.

Q. And you don't know the date they were taken? A. No.

Q. You don't know the date either when they were taken away from him, do you?

A. That is very near it, the date on those drawings, because I recall getting them back as a complete set of drawings, and, to safeguard our prints, we looked them over first and then stuck them in the safe, and it might have been the day after they came back we stuck them in the safe.

Q. Well, the day after they were given to you?A. Yes.

[183] Q. You don't know of your own knowledge where they came from, though?

A. No, but I remember asking Mr. Stetson to get them back.

Q. Some time prior to December 1, 1920, these drawings were returned into your possession?

A. Yes.

Q. (By the MASTER.) All you know, Mr. Wilson, is that you turned the blue-prints over to Mr. Stetson and he brought them back four or five months later?

A. That is it. It was within a day or two of when we received the blue-prints that we put them in the safe.

Q. (By Mr. TOWNSEND.) Do you know whether it was the intention to have Mr. Guenther bid on the manufacture of these machines in their entirety or merely to do certain parts represented by these blue-prints, or to do certain work on certain parts? Do you know of your own knowledge? A. No.

Q. (By the MASTER.) Do these blue-prints cover all the parts?

(Testimony of Ray O. Wilson.)

A. I think it is a complete set of blue-prints.

Q. (By Mr. TOWNSEND.) You state that these blue-prints, Exhibits 11, 12 and 13, were made from tracings? A. Yes.

Q. Are those tracings in existence? A. Yes.[184] Q. Who made those tracings?

A. I made some of them myself. George Mc-Manus made the biggest part of them. That lettering on the top there is his work which the majority of them have on.

Q. This "No. 102," "No. 130," and so forth?

A. Yes, and Elderken made the rest of them. There are very few of the Elderken's prints in there, though.

Q. Do you know how long before these blueprints were given out of your possession into Mr. Stetson's, to be given to Mr. Guenther, that the blue-prints were pulled from the tracings?

A. No. I think when Mr. Stetson first spoke to me about giving Guenther a complete set we had two or three sets made, complete sets.

Q. You had two or three sets of these blueprints made? A. Yes, from our tracings.

Q. Were they made just shortly before that?

A. Yes.

Q. How long before that had the tracings been completed?

A. Oh, just in the course of events. Some of them might have been completed five years, but I can't tell. They gradually grew up.

Q. How long was McManus in your employ?

A. I think approximately two years.

Q. About two years?

A. About two years, yes. Maybe more than that. I can't tell exactly.

[185] Q. When did McManus leave your employ?

A. I think it was right around the 1st of August, 1921.

Q. Now, when you say your employ, what concern are you speaking of?

A. The Pacific Closing Machine Company.

Q. How long had he been in the employ of the Pacific Closing Machine Company when he left?

A. I think it was around two years. Maybe more. I don't know. I can verify that from the books.

Q. Now, Elderken; you mentioned his name.

A. Yes.

Q. When was he working there for the Pacific Closing Machine Company?

A. He came with us in July, 1920, I think; no, he came with us in September, 1920, and he left in August, 1922.

Q. Where is McManus at present?

A. He went with some moving picture concern.

Q. Whereabouts?

A. I don't know. I think it is in Culver City.

Q. Where is Elderken?

A. He is with the Crowell Packing Company on the San Fernando Road.

Q. Did anybody else besides Elderken and Mc-

Manus and yourself do any work on these blueprints and the tracings from which the blue-prints were made? A. No.

[186] Q. Can you recognize your own work in any of these blue-prints? What proportion of these 431 prints did you have anything to do with?

A. I don't know. I couldn't tell you that. A very small proportion, I think, of the tracings, because I never considered myself a draftsman good enough to do tracing work. I have done some of it lately, though. It would be on that set you have there, if there is any. Of course he numbered them all up, and he lettered them all up, so that it would be pretty hard for me to dig out the ones I did.

Q. Are you able to dig out any in these three sets that you did yourself?

A. Well, I don't know. As I say, it would be lettered by him, and it would be pretty hard for me to dig them out.

Q. As a matter of fact, wasn't practically every one of those made by one or the other of those gentlemen, McManus or Elderken?

A. McManus made the biggest part of them. Elderken worked on the gallon machine more than anything else. I think McManus went over all of these and lettered them, the ones I made, and touched them up and fixed the tracings over and put them in shape, so that anything I would discover that I had done would be mighty poor evi-

dence of the fact that I did it. Here is some I did. I did several of those.

Q. In Exhibit 13 you have pointed to "A-263" as a print on which you did some work.

[187] A. Yes.

Q. That is entitled "Cap Slide Bearing Bracket," is it? A. Yes.

Q. And you are not sure that you did this No. A-263? A. No, sir.

Q. But you recall having done some work of that sort?

A. Yes. There are five or six—a good many sizes.

Q. That 263 is simply the cap slide bearing bracket?A. That is right.

Mr. TOWNSEND.—We submit, your Honor, that these blue-prints, as physical papers, have been shown to be in Mr. Guenther's hands at a certain time, for whatever that evidence is worth. The blue-prints themselves as evidence of any machine is not the best evidence. It is shown that the tracings and the original work is in evidence and this gentleman is merely testifying to secondary evidence relating to these blue-prints.

The MASTER.—I understood the only purpose they were introduced for was to show that Mr. Guenther had them.

Mr. BLAKESLEE.—Yes.

Mr. TOWNSEND.—Well, I say, except to show that these things may have been in the physical (Testimony of Ray, O. Wilson.) possession of Mr. Guenther; but they are not evidence of anything else.

Mr. BLAKESLEE.—For the purpose of showing Mr. Guenther had them, and that like machines, built in accordance with them, were put out by the Pacific Closing Machine Company.

[188] Q. (By Mr. TOWNSEND.) Now, when you got these blue-prints back into your possession what did you do about having them made—any machines that may have been made later? Mr. Guenther didn't make them, I understand.

A. No.

Q. Do I understand, then, that you entered upon manufacturing them yourself?

A. Oh, we were at that time manufacturing them. We just went right on in the same old course.

Q. And who do you mean by "we"?

A. The Pacific Closing Machine Company.

Q. Then I understand that even though the Pacific Closing Machine Company was manufacturing these machines you, or your associates, requested Mr. Guenther to bid on their manufacture also?

A. I think, Mr. Townsend, that the Pacific Closing Machine Company was against asking Mr. Guenther to bid on any of our products. It was the Los Angeles Can Company that wanted that. With their control of the California rights to the machine they had that right of getting the machines built other places.

Q. Just what is the relationship between the Pacific Closing Machine Company and the L. A. Can Company?

A. Mr. Stetson is the president of both places; that is about the only thing.

Q. He is president of the L. A. Can Company and also [189] president of the Pacific Closing Machine Company? A. Yes.

Q. Now, are you manufacturing cans for the Los Angeles Can Company under some contractual arrangement?

A. No. Can machines, you mean?

Q. Can machines, yes.

A. We build all of this type that they use.

Q. (By the MASTER.) What do you mean by that?

A. The high speed double turret machine. In fact it is the only machine they have bought in the last year.

Q. They were using other machines, were they? A. Yes.

Q. (By Mr. TOWNSEND.) Now, do you want to stand of record that the only relation between the Pacific Closing Machine Company and the Los Angeles Can Company is that Mr. Stetson is president of both companies? You know, yourself, that that relationship extends much further than that; now tell us about it.

A. I don't think it does. I can't see any other connection.

Q. Do you want to stand of record that you

(Testimony of Ray O. Wilson.)

have no written arrangement between the Pacific Closing Machine Company and the Los Angeles Can Company regarding the manufacture of these machines?

A. There is a royalty arrangement, yes, on the proposition. For the reason that the Can Company holds the California right, we pay them a royalty for every machine that is sold [190] out of California; but that is about the extent of it.

Q. You say the Los Angeles Can Company only holds the Los Angeles rights to this machine?

A. The California rights.

Q. I mean the California rights under these patents. A. Yes.

Q. Is that arrangement between the Los Angeles Can Company and the Pacific Closing Machine Company embodied in a written agreement?

A. I think the only place it is in is in our minutes—the minutes of the corporation—the Pacific Closing Machine Company.

Q. Well, your minutes probably show a certain transaction. A. Yes.

Q. But that doesn't create any contract?

A. No, I know. I don't think there was any other agreement.

The MASTER.—The minutes might be evidence of the fact.

Q. (By Mr. TOWNSEND.) Well, does your arrangement with the Pacific Closing Machine Com-

pany and the Los Angeles Can Company rest merely in parol, that is, by word of mouth?

A. I think so. That is about the extent of it.

Q. Do you know about how long that arrangement will last? A. No.

Q. Will it last more than one year?

A. The life of the patent. They have the patent, on a [191] royalty basis.

Q. Your arrangement lasts for the life of the patent, more than one year, and yet it is not in writing? A. I think that is it.

Q. Now, what is this royalty arrangement you speak about?

A. We pay them a percentage of the selling price of the machine and also the selling price of the repair parts and change parts sold in California.

Q. What do you do when you get machines that you sell outside of California?

A. The patentees of the machine, Mr. Stetson, Mr. Sumner, and I, get the royalty from those.

Q. Get the royalty from whom?

A. The Pacific Closing Machine Company.

Q. What is the amount of that royalty that you get on the machines sold outside of California?

Mr. BLAKESLEE.—That is objected to as immaterial.

Mr. TOWNSEND.—You have a contract in evidence here that shows an arrangement between these same men and the Bliss Company and specifies \$275 for one type and something for another

type. Now, I want to know about the other agreement.

Mr. BLAKESLEE.—That would be cross-examination, but it is immaterial with respect to any financial relations between the patent owners and the Pacific Closing Machine Company, which is not a plaintiff in this suit, as to remuneration for the use by that company of this invention. I can't see [192] that it is material. No measure of damage is attempted to be proved here, and the royalty paid by_c the E. W. Bliss Company to the patent owners is immaterial as far as these proofs are concerned, and certainly the amount of royalty under an agreement as to which the witness was not questioned is immaterial.

The MASTER.—As to the relations between the parties, I don't see how the amount of this royalty would interest us.

Mr. TOWNSEND.—Well, it will lead up to something else.

Mr. BLAKESLEE.—We object on the ground that it is not a proper line of investigation either. That is a matter as to which silence may be maintained by these plaintiffs at this time. It may become material on accounting, but not on proof of infringement.

Mr. TOWNSEND.—Now, this is a naturally interested witness in this litigation, your Honor. He has not only one contract, that he has told us about, but others that he has not told us about, and I have a right to go into these matters to the fullest extent, and it will lead to something further as to the relationship between the Pacific Closing Machine Company and the Los Angeles Can Company. I tried to get out of them a while ago what the relationship was, and they have been dodging it, and I want to find out. I want to find out about these relationships, on the question of interest and bias.

Mr. BLAKESLEE.—Of course he is interested in the case. But this specific transaction is not material, and it doesn't [193] sound on crossexamination, and we believe the witness is entitled to maintain secrecy as to that matter, which is purely collateral and immaterial.

The MASTER.—I think the objection is well taken. The objection is sustained.

Mr. TOWNSEND.—Well, I shall take an exception; and under the rule as to examination before a Master I would like to continue the examination and draw out the facts for the reviewing court to pass upon.

The MASTER.—In view of the nature of the objection, it being for the protection of the secrecy which I think they are entitled to as to their business relations, I would not care to receive this evidence even for the purpose of the record at this time. If I could see any materiality in it, or possible materiality, I would allow it to go in, and it may be that later I would change the ruling, but I don't see any materiality to it at the present time, and without instructions from the Court I would not want to allow the evidence to go in at all. Furthermore, I will say that the Master would assume the greatest bias on the part of this witness. Nothing you could bring out would increase that bias.

Mr. BLAKESLEE.—He is a party to the suit a plaintiff.

Mr. TOWNSEND.—Well, this matter goes much further, your Honor, and I think as long as the question of royalty and license has been brought up we are entitled, as a mere matter [194] of right, in a trial in open court, to go into this, and I am somewhat embarrassed by your Honor's suggestion about even receiving this evidence under the rules—and which rule I think you are familiar with—the equity rule that permits the laying out of the evidence even over the Master's ruling.

The MASTER.—My practice is ordinarily to receive all evidence unless there is some reason such as has been suggested here of protecting the parties.

Mr. TOWNSEND.—I think it is a perfectly outrageous suggestion to advance that we are prying into their business, since they have brought out a written document in regard to this company.

The MASTER.—Well, they brought it out for one purpose.

Mr. TOWNSEND.—But if it is admissible for one purpose it is admissible for all purposes.

The MASTER.—This particular royalty would not have any particular bearing whatsoever as

compared with the other royalty they have introduced. The two stand on different footings.

Mr. TOWNSEND.—I am not seeking to make comparisons; I am only seeking to get at the facts we are entitled to. They have no right to conceal one form of contract and trot out for their own purposes another form of contract.

The MASTER.—Well, I suggest that you proceed now, and if there is any further showing made later—

[196] Q. (By Mr. TOWNSEND.) Under that arrangement you have with [197] the Pacific Closing Machine Company whereby you and your associates, Sumner and Stetson, receive a royalty on machines sold outside of California by the Pacific Closing Machine Company, is that agreement in writing?

A. No. That also is only in the minutes. I am sure of that.

Q. Some little inside arrangement you have among yourselves? A. That is it.

Q. How long has that agreement been in force?

A. Ever since the incorporation in June, 1921.

Q. By what authority does the Pacific Closing Machine Company sell these machines that they manufacture in the first place?

A. By what authority? I don't quite understand that question.

Q. (By the MASTER.) What right have they to sell them?

A. Just because the patentees are really the main

stockholders of the Pacific Closing Machine Company. Not all, but the main.

Q. (By Mr. TOWNSEND.) Is this agreement with the Pacific Closing Machine Company solely between the Pacific Closing Machine Company and yourself, Stetson, and Sumner?

The MASTER.—What arrangements do you mean?

Mr. TOWNSEND.—By which the Pacific Closing Machine Company is selling machines.

[198] A. Yes. It would necessarily have to be, I guess.

Q. (By Mr. TOWNSEND.) No, that is not an answer to my question. Is this agreement between the Pacific Closing Machine Company on the one side and simply you and Stetson and Sumner on the other side?

A. As far as the royalty arrangement, yes.

Q. No, as far as the manufacturing is concerned. A. Yes.

Q. Does the L. A. Can Company have anything to do with saying who shall manufacture?

A. They have a right to manufacture the machine themselves or to have it manufactured by other people other than the Pacific Closing Machine Company.

Q. Is that agreement in writing with the L. A. Can Company?

A. No. It doesn't necessarily have to be. They are holders of the California rights to the patent. That contract is in writing. I think Mr. Stetson

can clear that up better than I can, because that was between him and the Los Angeles Can Company.

Q. You say their rights under these three patents that are left in suit— A. Yes.

Q. —that that agreement is in writing?

A. I think it is. I am not certain about that.

Q. Have you got that agreement?

[199] A. No.

Q. Has your counsel got it?

A. I think Mr. Stetson can get it.

Mr. BLAKESLEE.—We object to that as entirely immaterial here.

Mr. TOWNSEND.—I call upon counsel to produce the agreement by which the L. A. Can Company show any interest whatsoever in the three patents in suit.

Mr. BLAKESLEE.—Now, it is immaterial.

Mr. TOWNSEND.—I don't want to argue the question.

[201] Mr. TOWNSEND.—I again call upon counsel and the plaintiffs to produce the agreement that this gentleman says is just between the L. A. Can Company and the patentees, with respect to any of these patents in suit.

Mr. BLAKESLEE.—If we have it you may have it in evidence. I haven't got it. Now that you have made your point I know what you are after, and you are entitled to it as far as I can see.

Q. (By Mr. BLAKESLEE.) Is that agreement in writing that is referred to?

A. I think it is.

(Testimony of Ray O. Wilson.)

Mr. BLAKESLEE.—We will produce it if we can.

[202] Q. Will you produce that, or have your secretary produce that, at the next session, without a subpoena being produced? A. I will.

[203] The MASTER.—So far as the record before us is concerned the L. A. Can Company has no interest in the litigation.

Mr. TOWNSEND.—That is my understanding of it.

Mr. BLAKESLEE.—Excepting as to its relations with the patentees under a royalty agreement, and so forth.

The MASTER.—We have nothing about that agreement in as yet.

Mr. BLAKESLEE.—No. We will produce that agreement.

Q. (By Mr. TOWNSEND.) The rights that you say that you three co-owners of the patents granted the Pacific Closing Company for manufacture, are those rights exclusive?

A. On the Pacific Coast, yes, excluding California.

Q. Excluding California? A. Yes.

Q. Who else has any rights of manufacture in California? A. The Los Angeles Can Company.

Q. They have a right to get their machines anywhere they please?

A. They have a right to contract them out just as they tried to do with Mr. Geunther.

Q. When you say "the Pacific Coast" what territory do [204] these rights cover?
A. The territory west of the Rocky Mountains, on up through Canada, and the Hawaiian Islands and Australia and Alaska, and that portion of the country.

Q. So in all that territory west of the Rocky Mountains, except California, the Pacific Closing Company has the exclusive right of manufacture and sale? A. That is right.

Q. Who owns the controlling interest in the Pacific Closing Company?

Mr. BLAKESLEE.—We object to that as entirely immaterial.

The MASTER.—Overruled.

Mr. BLAKESLEE.—Exception.

Q. (By Mr. TOWNSEND.) Are you a stockholder in the L. A. Can Company? A. No, sir.

Q. Is Mr. Sumner?

A. No, sir, not to my knowledge.

The MASTER.—He said Stetson controlled both of them before, didn't he?

Mr. TOWNSEND.—I think so, but I wanted to make it clear.

Q. The Master's statement is correct, is it not, that Mr. Stetson controlled both the L. A. Can Company and the Pacific Closing Company?

A. I don't know about the L. A. Can Company but I do know about the Pacific Closing Company.

[205] Q. Are any other directors of the L. A. Can Company directors or officers in the Pacific Closing Machine Company? 312 Angelus Sanitary Can Machine Co. et al.

(Testimony of Ray O. Wilson.)

Mr. BLAKESLEE.—We object to that as immaterial.

A. Not to my knowledge.

Q. (By Mr. TOWNSEND.) Will you state again all the Pacific machines that you know of as ever having been returned to you? You mentioned two, I believe. Will you again mention those companies or concerns, and any others you can think of?

A. I spoke of M. J. Brandenstein and the California Packing Corporation.

Q. Yes, that is according to my recollection. Now can you recall any other Sumner and Wilson or Pacific closing machines that were ever returned?

A. We have had them returned for repairs. You don't mean that, do you?

Q. No. I mean returned because they were unsatisfactory or where you had put them in a plant and they didn't take your machine but took another machine? A. No.

[206] Q. You can't think of a single one? A. No.

The MASTER.—The full breadth of his question would call for any machines that you put in a contest with the others.

Mr. TOWNSEND.—That is correct.

The MASTER.—I didn't know whether the witness caught that.

A. I think you have in mind machinery sent back to the Wheeling Can Company in 1916, I think it was. That was sent back because it wasn't satisfactory.

Q. (By Mr. TOWNSEND.) There is one you have thought of. Now can you think of any others returned under similar circumstances?

A. No. I just happened to recall that one just then.

Q. How long was that machine there at the Wheeling Can Company?

A. I don't know. It wasn't over three weeks at the most.

Q. The Wheeling Can Company only had your machine there about three weeks, and then sent it back?

A. I think that is all. It was a very short contest, or a very short trial.

Q. Taking up the proper scope of the question, where you may have placed machines to see whether your machine would be taken as against some other competitive machine, have you always invariably placed your machine under those circumstances [207] or have you ever had any sent back and any other machine taken in place of yours?

A. Well, in these two cases, of the Brandenstein Company and the Wheeling Can Company, I don't know what other machine replaced them, but it wasn't really in contest with any other machine. It was on trial by itself alone.

Q. Were there any others in any other place where you put your machine alongside of another concern's machine where your machine was sent back to you and not accepted?

A. No, I can't think of any.

Q. I don't mean a case similar to the Brandenstein case. I am speaking now of where you failed to make a sale where your machine had a trial.

A. No, I can't recall any more than I have told you about.

Q. Now take up this Brandenstein machine. Just what were the circumstances there again, please.

A. They had a peculiar can. They had more tin in their cover and more tin in their flange. It was a new experiment and called for more time than they gave us.

Q. (By the MASTER.) Was this a coffee can?

A. Yes, a coffee can. I can cite you the trouble that Mr. Guenther had and also that Mr. Troyer, of the Troyer-Fox, had, in making their machines stick, and you can check up the time in either case and see we were shy a good month of sufficient time to make good; that we weren't granted the [208] same length of time that they had.

Q. (By Mr. TOWNSEND.) I wasn't asking for excuses. I am asking now as to the working conditions that you had there. That was for vacuum packed coffee, wasn't it?

A. Yes, that is right.

Q. That is where the can is evacuated of the air and then the top sealed down to maintain the coffee in a condition of vacuum?

A. They first seamed it, then vacuumized the coffee, and then soldered a little pinhole in it.

Q. What was the trouble with your machine in handling that work?

A. We didn't make tight enough seams to suit them.

Q. In other words, it wouldn't maintain the vacuum? A. No.

Q. The seam was loose? A. Yes.

Q. Have you ever met with that condition anywhere else? A. No, sir.

Q. Of failing to keep a tight joint by your machine?

A. No, sir. I never had the machine thrown out for that reason.

Q. Going back to your statement about Brandenstein for a moment, what machine were they using, or are they using, at the time you submitted your machine?

A. They were using the Angelus 14–P and Troyer. That is [209] all of the automatics, but they had several hand machines, semi-automatic.

Q. They were packing vacuum-packed coffee on the Angelus 14–P machine?

A. No. They were putting the bottoms on the cans, that is all. They were packing them on the Troyer.

Q. They were packing and sealing the cans for vacuum pack on the Troyer machines?

A. Yes, sir.

Q. You don't know that they have used the 14–P for sealing the top or creating a vacuum?

A. Not that I know of.

Q. It may have been done without your knowledge? A. It may have been done, yes.

Q. This Troyer machine, what sort of a machine is that?

A. It is similar to the 14–P in operation.

Q. Is that the machine that is made by the Seattle-Astoria Iron Works? A. Yes.

Q. You said that one machine was returned from the California Packing Corporation plant in San Francisco. A. Yes.

Q. Do you know which one of their plants there?

A. The Beach and Leavenworth plant No. 1.

Q. What machine did they take in its place?

A. They had their cannery full of Troyer-Fox machines. [210] Their plant was fully equipped, a No. 1 plant, and we got in on an extra line, where they tore out an old Johnson machine and gave us a try out there.

Q. They stuck the Troyer machine that you referred to in and rejected yours?

A. Yes, up until last year when we made quite a hit with them in the Sanger plant.

Q. What other machines have they got in the Sanger plant?

A. At the Sanger plant they only have a Johnson gallon machine. They had an Angelus gallon machine stuck back in the warehouse, but they didn't use it.

Q. And you put in a gallon machine for them?

A. No.

Q. What machine did you put in there at Sanger?

A. Three two-and-a-halves, a two-pound and a one-pound tall.

Q. You say that the Angelus was putting the bottoms on the coffee cans at Brandenstein's?

A. Yes.

Q. Is there anything different in the tightness of the joint between the bottom and the top?

A. I don't think so.

Q. In other words, the bottom has got to hold tight just as well as the top has got to hold tight?

A. Surely.

Q. How long ago was this Brandenstein episode?

[211] A. I think it was the latter part of 1921. I am not sure, though, about that date.

Q. Was the 14–P Angelus already in there, or did they get one at the same time?

A. It had been in there for a year or more.

Q. I understood you testified on direct examination that it was probably three years ago since you had seen a new 14–P machine installed anywhere. Have you any reason to modify that statement as to time?

A. No. Did I say three years or two years?

Q. You said probably three years ago.

A. I don't recall of sticking exactly to three years as the time of seeing it installed. I don't know how long it has been. I had in mind the Golden State at Ontario the last time I saw a new 14–P installed.

Q. And when was that?

A. Probably three years ago. It was when they

first came out with the clincher. That would fix the date.

Q. You are testifying from memory here to matters running back a number of years, and I want to know how you fix this as practically three years ago.

A. Well, I don't know exactly the date.

Q. Was it 1920, 1921, or 1922?

A. It was probably three years ago, or something like that, but I can't fix the date.

[213] Q. (By Mr. TOWNSEND.) On your direct examination you referred to various speeds at various plants that you claimed your Pacific machine operated at, and you mentioned certain factors in your opinion entering into the matter of speed, as to how fast the cooker was working and how fast some other part of the machinery was working. In what way do those various factors affect the operation of your machine?

A. They affect the speed of the machine.

Q. In other words, do I understand if a cooker is running slower than the maximum speed of your machine you have to slow down your machine to that speed?

A. Not necessarily, no, but it would only run the cans through to the capacity of the cooker. If the cooker was going 100 cans per minute, and that is the limit of its cooking [214] capacity, the machine would only run 100 cans a minute.

Q. Where you have got those different instrumentalities that go into the canning and syrup-

ing and filling and cooking, do you vary the speed of your machine with the speed at which the filled cans are coming to you?

A. If that is running regular, for instance, if they are going to establish the speed in apricots at 80 cans a minute, we will set our machine at 85 and it will handle 80 cans a minute without any trouble.

Q. Did you take into consideration all the factors that go into affecting the speed or delivery of cans from your machine, or any can-heading machine? Have you mentioned all the factors that affect the handling of cans in that speed?

A. No. The goods have a great deal to do with it. With liquid goods it will have to be run slower, and with fish, for instance.

Q. The Master called attention to the fact that goods that are more sloppy the liquid materials wouldn't run as fast as with a lighter material.

A. That is right.

Q. Is there any other factor that you have omitted? A. None that I remember of.

Q. How about the size of the cans?

A. That makes no difference.

Q. It makes no difference whether you are operating on a can $27/_8$ inches in diameter or 4 inches in diameter?

[215] A. No. We found a one-pound tall is handled just as good as a three-pound.

Q. Let's speak in terms of diameter so we can understand it. 320 Angelus Sanitary Can Machine Co. et al.

(Testimony of Ray O. Wilson.)

A. Well, that would be a 3-inch as against a $41/_4$. Now, when you get down to small cans we have run them better than a hundred.

Q. On the smaller cans you can run them faster than the big cans, isn't that true?

A. No, not necessarily. The speed of the machine doesn't affect it.

[216] How would you designate it in terms of weight where the can is of 4 inch diameter?

A. I don't know, but what they call the regular $2\frac{1}{2}$ is 4 inches in diameter and $4\frac{5}{8}$ tall, and the one-pound tall is 3 inches in diameter and $4\frac{5}{8}$ tall.

[217] Q. (By Mr. TOWNSEND.) In this advertising matter you have [218] produced the "Canning Age," Plaintiffs' Exhibit 8, issue of February, 1922, I will ask you if you recognize the advertisement of the Angelus Sanitary Can Machine Company, the defendant in this case, on page 78?

A. Yes.

Mr. BLAKESLEE.—We object to that. The catalog speaks for itself, and whether he recognizes it or not makes no difference. If it is in there counsel may offer it as part of that exhibit.

Mr. TOWNSEND.—Whose handwriting is that in pencil at the top of that advertisement?

A. I don't know. I turned this over to Mr. Blakeslee.

Mr. BLAKESLEE.—It may be stipulated that it is my writing.

Mr. TOWNSEND.—What does it say? I can't read it.

Mr. BLAKESLEE.—Without testifying, may I volunteer?

The MASTER.-You may volunteer.

Mr. BLAKESLEE.-It says, "shows difference between new and old defendants' machines."

Q. (By Mr. TOWNSEND.) This advertisement on page 78 shows the 14-P you have been talking about?

A. Yes. Of course I never have seen this on the 14-P.

Q. You are speaking of the can body feed?

A. The can feed, yes, sir.

Mr. BLAKESLEE.—We object to that as calling for a conclusion as to whether that shows the exact machine. We don't think the witness can tell as to that.

[219] A. I never have seen that on there and I never have heard of anybody else that has seen it.

Q. (By Mr. TOWNSEND.) I am not calling for any conclusions or hearsay, but you have been talking about a 14-P and I wanted to identify the 14-P as the machine in that advertisement, the one you have been referring to. A. Yes, sir, that is it.

Q. And the new machine of the defendant is shown in this advertisement as Angelus No. 24-P?

A. Yes.

Mr. BLAKESLEE.-The same objection unless it is understood it is an advertisement shown there. The MASTER.—That is so understood.

Mr. TOWNSEND.-We will offer this page 78

322 Angelus Sanitary Can Machine Co. et al.

as part of the previous offer of Exhibit 8 of the plaintiffs.

The MASTER.—There is some printed matter on there that Mr. Blakeslee may contest. I don't know as he will take exception to it, though.

[220] Mr. TOWNSEND.—The Master has called attention to page 31 of the same issue of the "Canning Age," of Plaintiffs' Exhibit 8, to the item headed, "Angelus Sanitary Can Machine Co.," beginning about the middle of the middle column on that page and ending at the top of the third column, that being an advertisement of the defendant. We will offer that in connection with the exhibit itself. Then on page 2 of this issue of the "Canning Age," Exhibit 8, appears an advertisement, "Troyer-Fox Non-Spill Closing Machines Were the Center of Attraction at the Convention." "Seattle-Astoria Iron Works." Is that the Troyer-Fox machine that you have been talking [221] about?

Mr. BLAKESLEE.—We object to that as calling for conclusion. Nobody can make what it is no matter how skilled a mechanic he is.

Mr. TOWNSEND.—Now wait a minute. I object to your coaching this witness.

Mr. BLAKESLEE.—I insist upon my objection that that is an improper question, and no person from such a blurred and minute showing as that could testify.

The MASTER.—I think the witness can best state whether he can testify or not.

Mr. BLAKESLEE.—He asked if that is the machine and I say nobody can tell. It calls for a con-It is not a machine. It is about a 4 by clusion. 5 cut.

The MASTER.—It seems to me the question is proper.

A. Those are the two types of machines that I have seen in use.

The MASTER.—In that same article, Mr. Townsend, there is also a statement with respect to plaintiffs' machine and its exhibition.

Mr. BLAKESLEE.—Did your Honor read that? The MASTER.—Yes.

Mr. BLAKESLEE.—That ought to be offered also, I think.

Mr. TOWNSEND.-I don't want to offer it, but I want this page 2, advertising the Troyer machine, to be deemed a part of the exhibit, and also the cut on page 32 of the Angelus [222] No. 14-P double seam closing machine. That cut I just referred to there represents the defendants' 14–P as far as the seaming machine itself is concerned, minus the can feed, does it?

Mr. BLAKESLEE.—We object to that; it speaks for itself.

The MASTER.—He has already stated it does, before. A. Yes.

Mr. TOWNSEND .- And your Honor has called attention to the item of the E. W. Bliss Company on page 32, but I submit that that is not pertinent here nor proper because the Bliss Company is not a

324 Angelus Sanitary Can Machine Co. et al.

party to the suit, and we haven't a Bliss machine, and we don't know what it is. I am frank to say I don't know, and I think we are getting too far afield.

The MASTER.—He said the Bliss people were making their machines.

Mr. BLAKESLEE.—We ask that it go in.

Mr. TOWNSEND.—But that is a conclusion we cannot concur in. What the Bliss people may make would be very much like lots of licensees: they make a machine under a license and the first thing you know they might be building an entirely different machine. I think we are on dangerous ground on the question of publicity, anyway.

Mr. BLAKESLEE.—It speaks for itself. It doesn't say the machine is the same as any other, and it may be illuminating in connection with this license. It seems to me it is as material as the other machines which have been referred to, [223] like the Troyer, and so forth.

The MASTER.—The only reason I suggested it was because I had read the article.

Mr. BLAKESLEE.—We suggested he offer it upon the Master's statement that he has read the article, as a part of this exhibit, in connection with the other matters, subject to any objection that may be made.

The MASTER.—It will be received.

Mr. BLAKESLEE.—The article referred to being the article headed, "E. W. Bliss Company, Brooklyn, New York," page 32 of this Exhibit.

Q. (By Mr. TOWNSEND.) On page 63 of this issue is an advertisement of the Max Ams Machine Co. Double seamers, Max Ams double seamers. Is that the Max Ams machine that you speak of that you have displaced in San Diego and other places?

Mr. BLAKESLEE.—The same objection as to the other machines, as calling for a conclusion as to structure.

The MASTER.—So far as he knows he may testify.

[224] A. It closely resembles one of the types; but they build a number of types.

Mr. TOWNSEND.—I offer this page 63 as part of that exhibit 8.

Mr. BLAKESLEE.—We merely object to the offer on the ground of the objection to the questions concerning it.

Q. (By Mr. TOWNSEND.) Now, in this later issue of the "Canning Age" for August, 1922, Plaintiffs' Exhibit 7, on the front cover, is an advertisement of the Max Ams closing machine, sanitary cans. Is that the machine?

A. The same cut as that in Exhibit 8, of February, 1922.

Mr. BLAKESLEE.—Same objection as last noted.

Q. (By Mr. TOWNSEND.) Is this machine still in use—the Max Ams?

A. Well, it has been several years since I have seen them in use.

326 Angelus Sanitary Can Machine Co. et al.

(Testimony of Ray O. Wilson.)

Q. How recently have you seen a Max Ams machine?

A. I don't believe I have seen one since I came back from the East in 1920.

Q. The Max Ams Company has not gone out of business on account of the Sumner and Wilson machine, has it? A. Oh, no; not yet.

Q. And the Troyer-Fox machine hasn't gone out of business, either, has it? A. No.

Q. They are both being sold in the open market and you [225] are meeting competition with them to-day, are you not?

A. Yes. Not the Max Ams out here.

Q. And the American Can Company, are they putting out a double seamer, too, in your competition with them?

A. Quite a few of them they are putting out that way.

Mr. BLAKESLEE.—It is usual to have a stipulation, to avoid burdening the Master and ourselves, that all rulings of the Master may be deemed excepted to without the necessity of noting the exception each time, so that the record may be complete in that respect as to formal exceptions to the Court on final report. Is that satisfactory?

Mr. TOWNSEND.—That is agreed.

Mr. BLAKESLEE.—And that may apply to all objections heretofore made, and rulings of the Master, as well as to those hereafter to be made?

Mr. TOWNSEND.—Yes.

(Last question read.)

A. Well, no, we are not in competition with them. I couldn't say that. They put them out to their own customers. It is not like the Troyer-Fox on the open market; they are real competition. That is the only real competition we have here.

Mr. TOWNSEND.—Now, this Max Ams ad on the front page of this exhibit 7 may be considered a part of said exhibit; and likewise the Seattle-Astoria Iron Works ad of the Troyer-Fox Non-Spill Sealing Machine, on page 2.

[226] Q. What you said before in regard to exhibit 8 will apply here?

Mr. BLAKESLEE.—Same objection.

A. Yes. I have seen those machines that that is a photograph of there, if that will do you any good.

Q. (By Mr. TOWNSEND.) Those fellows are giving you real competition, are they, the Seattle-Astoria Iron Works, with that Troyer-Fox machine?

A. Yes. Certainly.

Q. Now, this morning when those "Canning Age" issues were offered in evidence you had several other magazines or articles. What were those, that were not offered but were returned to counsel?

Mr. BLAKESLEE.—We object to that as immaterial, whatever other magazines he may have been looking at.

The MASTER.—I don't see the materiality of it.

Mr. TOWNSEND.—All right. Now, in connection with this exhibit 7, "Canning Age," of August, 1922, appears an advertisement of the Angelus Sanitary Can Machine Company, at page 59, of the

Angelus No. 24–P. I will ask that that be considered also in connection with this exhibit 7.

Q. You advertise in the "Western Canner and Packer"?

A. We have, but I don't think we carry any more advertisements with them now.

Q. I show you an issue of the "Western Canner and Packer" for October, 1922, Vol. 14, No. 6, and call your attention [227] to page 23, advertisement of the Los Angeles Can Company. Do you recognize that advertisement? A. Yes.

Q. And that "Los Angeles Can Co., Los Angeles, Cal.," that is one of the plaintiffs in this suit?

A. That is a question that seems not to be settled yet.

Q. Well, it has appeared as plaintiff? A. Yes.

Mr. TOWNSEND.—We wish this advertisement to be copied into the record. It reads as follows: vs. Ray O. Wilson et al.

(Testimony of Ray O. Wilson.) "LOS ANGELES CAN CO. Los Angeles, Cal. Manufacturers of A Full Line of C A N S For All Purposes.

> Especially Equipped to Furnish Sanitary Cans for Fruit and Tuna.

Customers Furnished With High Speed Pacific also Angelus Closing Machines.''

Q. What Angelus Closing Machines do you know

are referred to in that advertisement?

[228] Mr. BLAKESLEE.—We object to that on the ground that no foundation has been laid. The witness has not been qualified as to whether he is responsible for the insertion of the advertisement or that he had anything to do with it.

The MASTER.—I think I can straighten that out. The L. A. Can Company handled some of the Angelus machines.

Mr. TOWNSEND.—Of course any information your Honor may have will be all right, but we would rather have the witness state. 330 Angelus Sanitary Can Machine Co. et al.

(Testimony of Ray O. Wilson.)

The MASTER.—Well, he doesn't know anything about—

Mr. BLAKESLEE.—That is objected to on the ground that no foundation has been laid. He has not testified that he had anything to do with its authorization or its insertion, or that that ad emanated from the Los Angeles Can Company at all.

The MASTER.—The objection is overruled. I didn't catch the "Do you know."

Q. (By Mr. TOWNSEND.) Now, after counsel has coached you—

Mr. BLAKESLEE.—Now, I object to that. The objection was made in good faith, and is proper.

A. I would guess it is the machines they have on hand of the Angelus type, the 14–P, that have been brought back from other canneries. They have got lots of them.

Mr. TOWNSEND.—I will offer the paper "Western Canner and Packer" of October, 1922, in evidence as Defendants' Exhibit "J," the offer being momentarily restricted to this advertisement [229] of the L. A. Can Company on page 23.

Mr. BLAKESLEE.—We object to it on the ground that no foundation has been laid and the alleged advertisement has not been traced to the L. A. Can Company by any proof whatsoever.

The MASTER.—Technically, perhaps not; but I guess the paper speaks for itself.

Q. (By Mr. TOWNSEND.) Now, on page 28 appears an advertisement of the Angelus Sanitary

Can Machine Company. Do you recognize in those cuts the machine turned out by the defendant?

Mr. BLAKESLEE.—Same objection as previously noted to this line.

The MASTER.—We are beginning to get cumulative evidence here now. The objection is overruled.

Q. (By Mr. TOWNSEND.) I mean as far as the—

A. Just as the picture represents. I recognize these machines, but I never have seen that one (indicating).

Q. You recognize the cut of No. 24-P?

A. Yes.

Q. And the automatic flanger No. 11-F?

A. Yes.

Mr. TOWNSEND.—That appears on page 23 of Defendants' Exhibit "J."

Q. I show you a portion of a page from the "Western Canner and Packer," being the upper half of page 43, but [230] unfortunately I haven't the whole issue here; but you may be able to recognize your own advertisement, and I assume that that issue was probably of March, 1922, but I will stand corrected if you know the issue to be otherwise or if you have the full magazine yourself.

A. You say that is March, 1922?

Q. It has a notation in rubber stamp, "Received Mar. 22," and I am only assuming that that is approximately the time that thing was published. I see a letter here addressed to the Pacific Closing

Machine Company, which is not dated. But do you recognize that as one of your advertisements irrespective of when it was published?

Mr. BLAKESLEE.—I don't care about the fragmentary part. If the witness will testify that he issued an advertisement of that sort and distributed it, if you will ask him that, I won't object on account of its being fragmentary.

A. Yes, I recall that as one of our advertisements. I had forgotten all about it, though.

Q. (By Mr. TOWNSEND.) Do you know about when that was published? A. No, I don't know.

Q. Was it approximately the date on here that appears in the rubber receiving stamp?

A. Well, I couldn't say. I recall getting the letter from Mr. Williams for the advertisement, but that is about the only thing I remember.

[231] Q. You say you got this letter from Williams? A. Yes.

Q. He wrote it at your solicitation? A. Yes.

Q. And is Mr. Williams still with the Los Angeles Can Company? A. Yes.

Q. Is he interested in the Pacific Closing Machine Company? A. No.

Q. Is he a stockholder? A. No.

Q. How much of the stock of the Pacific Closing Machine Company does the Los Angeles Can Company own?

A. Does the Los Angeles Can Company own?

Q. Yes. A. Not a cent that I know of.

Q. Whatever stock is owned in that respect would be by its officers?

A. By Mr. Stetson and one of the boys that work over there—two of the boys that work over there.

Q. Who are they?

A. Mr. Sumner and Mr. Murray.

Q. Is that Mr. A. D. Sumner, the co-patentee with you? A. Yes.

Q. And he works for the L. A. Can Company? A. Yes.

[232] Q. And is also a stockholder in your company? A. Yes.

Q. Do you know whether he is a stockholder in the Los Angeles Can Company?

A. I think not. I don't know.

Q. Now, who was the other boy who is at the L. A. Can Company and owns stock in the Pacific Closing Machine Company? A. No one that I know of.

Mr. TOWNSEND.—I will ask that this advertisement last referred to be received in evidence as Defendants' Exhibit "K."

[233] 811 Washington Building.

Los Angeles, California, Friday, January 5, 1923,

9:30 A. M.

(Parties met at the office of the Special Master at the above address and proceeded to the plant of the defendants at No. 4900 Pacific Boulevard, unaccompanied by reporter.)

Mr. TOWNSEND.—If your Honor please, on behalf of the defendants I would like those two

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machines that were inspected this morning at the defendant's plant, the Angelus 14–P and the Angelus 24–P, formally offered in evidence as Defendants' Exhibits "L" and "M," respectively.

The MASTER.—You only wish to offer them constructively, do you?

Mr. TOWNSEND.—Well, I don't know of any authority for a constructive offer. They remain constructively in the custody of the Master, but they must be formally exhibits and a formal offer made, and that is what I am making now.

[234] Mr. BLAKESLEE.—We understand that this offer with respect to the defendants' machine other than the 14–P machine just offered is now made in substitution for the offer made by the plaintiffs on the 22d of December, 1922.

Mr. TOWNSEND.—That would be the effect of the offer, because at that time the No. 24–P was not in completed shape.

Mr. BLAKESLEE.—Which offer now made supersedes such previous offer by plaintiffs.

The MASTER.—The machines will be received.

Mr. BLAKESLEE.—Now, does the Master wish to have the record show what took place this morning?

The MASTER.—Yes. The Special Master proceeded with Mr. Blakeslee as counsel for plaintiffs and Mr. Townsend as counsel for defendants and the experts of the respective parties, Messrs. Berry and Abbett, to the defendants' plant, and there the machines Angelus 14–P and Angelus 24–P were inspected by the Master and counsel, explanation thereof being made by Mr. Roy Augensen.

The party arrived at the plant at about ten minutes after ten o'clock A. M. and left at twelve o'clock M.

The machines were attached to power belts which were operated. No. 14–P was operated at the rate of about 60 cans per minute if cans had been fed into same and No. 24–P was operated at the rate of 125 and then attached to a larger pulley and operated at the rate of 210 cans per minute.

Several cans were passed through each of the machines and [235] tops sealed on them, and experiment was made as to a can passed through 24–P and double seamed standing air pressure. The gage operated with full capacity without any leakage at 40 pounds pressure, and then a can which had gone through the first seaming operation was tested, the gage showing something over 15 pounds pressure before it bubbled.

Comparisons were made between the two machines, and also a wooden model which the defendants had had constructed and which was there at the plant. Also various parts of the machines were exhibited separate from the machines themselves.

Mr. TOWNSEND.—I think that is all right.

TESTIMONY OF ROY AUGENSEN, FOR DE-FENDANTS.

[239] ROY AUGENSEN, called as a witness on behalf of the defendants, having been first duly sworn, testified as follows:

Direct Examination.

(By Mr. TOWNSEND.)

Q. Please state your name.

A. Roy Augensen.

Q. Where do you reside, Mr. Augensen?

A. No. 1242 West 50th Street, Los Angeles, California.

Q. By whom are you employed?

A. Mr. Guenther; the Angelus Sanitary Can Machine Company.

Q. In what capacity are you employed?

A. As seamer expert, and outside man on all machinery that he builds.

Q. How long have you been in the employ of the defendants? A. Since March last year.

Q. Prior to that what had been your line of work?

A. Just prior to that I was superintendent of the Bloomington Canning Company, at Bloomington, Illinois, and prior to that with the American Can Company for five years.

Q. How long were you with the Bloomington Company?

A. One season. I just accepted the job to help them out, in other words.

Q. What was your position with the American Can Company?

A. Road man; traveling. Outside man.

[240] Q. In what line of work?

A. Double seamers. Traveling around to different canneries, all over the United States practically, on these machines he constructed, supervising the installation and improving, and taking care of them in general.

Q. Had you given any other study to the Canning machinery business than the employment features you speak of ?

A. Why, I was really brought up with can-making machinery and double seamers and canning.

Q. Explain that a little more fully, if you will.

A. My father was with the American Can Company since they were just a small place on River Street in Chicago. It was then called the Norton Brothers, and was later changed to the American Can Company. But he was with them for thirty years, and he instructed me and taught me all that he knew and everything that came up with him in regard to can making and canning and double seaming. He was with them before sanitary cans ever came out; he was with them when they had only the soldered cans. So through his instructions I was prepared a little bit before going into the game myself.

Q. In regard to this machinery you were selling for the American Can Company, tell us a little more about the nature of that machinery.

A. We were not selling the machinery; we were selling the cans and leasing the machines, and they have quite a number of different type closing machines or double seamers. They [241] have intermittent machines and they also have rotary machines, and the feed on these machines has been changed from time to time, improving and perfecting.

Q. Do you know whether or not the American Can Company is still selling double seamers?

A. They are renting double seamers. They don't sell them. They are in the canning business and they rent these machines to their customers as an accommodation.

Q. Are those machines restricted in their use to a small territory, or does it extend over a wide territory?

A. Over a wide territory. I know they have a factory in China and they furnish the same machines in China even, so it is all over the world you might say.

Mr. TOWNSEND.—I suppose the Court will take judicial notice of what the American Can Company is, its scope and so forth, without going into the details as to that.

Mr. BLAKESLEE.—We will stipulate the American Can Company is a large corporation with many branches.

Q. (By Mr. TOWNSEND.) What sort of machines are they using in the Bloomington plant?

A. They are using what they call the Canco double seamer.

Q. That I understand to be the trade name of a double seamer put out by the American Can Company. A. Yes, sir.

Q. What goods were you canning there?

A. We were canning corn.

[242] Q. And how were you effecting the seal? A. How is that?

Q. (By the MASTER.) How did you make the seal?

A. A double seam, on these Canco closing machines.

Q. (By Mr. TOWNSEND.) What did you have in the way of a seaming medium besides the tin; did you use what they call composition or something else?

A. They used the paper gasket. That is what they use mostly in the east now. They don't use the compound, only on gallon cans and some No. $2\frac{1}{2}$ and No. 3 cans, where the gasket is liable to fall out before it is ever put on the can; and then there is compound used on fruits—berries. In Michigan there is a lot of compound gaskets used. But all of the pea and corn canners are using the paper gasket. Probably there is some that make their own cans that use the compound because there is less equipment used to put the compound gasket in than the paper.

Q. (By the MASTER.) What do you mean by gasket?

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(Testimony of Roy Augensen.)

A. There is a compound gasket (showing), that rubber compound. Others have paper in. Just a paper gasket in that depression there.

Q. A washer? A. A washer.

Mr. TOWNSEND.—A paper ring washer that fits in the can flange there, as I understand it.

Mr. BLAKESLEE.—About the same shape as a Mason jar rubber [243] washer.

Mr. TOWNSEND.—Very much the same.

Q. Aside from these Canco seaming machines of the American Can Company are any other double seamers in use to-day on the coast, particularly here in California?

A. Oh, yes, numbers of them, a great many. As a matter of fact all the American Can Company branches all over the world use the same machine, and there is a great number of them used here.

Q. You were present this morning when the Master and counsel for the parties and the experts, Messrs. Berry and Abbett, were present at the defendant's plant and observed the running of the defendant's machines, Angelus 14–P and Angelus 24–P? A. Yes, sir.

Q. And you are the Mr. Roy V. Augensen referred to by the Master as having explained the operation to the Master? A. Yes, sir.

Q. Here are two blue-prints, Mr. Augensen, which are marked respectively Defendant's Exhibit "A" and Defendant's Exhibit "B," and which I will state, for the benefit of counsel and the Master, are two of the blue-prints attached to

a bill of particulars furnished by defendants in this case, and I merely want this witness to identify the machines shown in those two blue-prints "A" and "B."

A. This print, Exhibit "A," is of a 14–P machine, Exhibit "B" is of the 24–P.

[244] Mr. TOWNSEND.—I want to formally offer these blue-prints as Defendant's Exhibits "A" and "B" in this case.

Mr. BLAKESLEE.—We object merely where there may be variance as between these prints and the blue-prints purported to correspond with the same, attached to the particulars furnished by plaintiffs.

The MASTER.—They will be received, subject to correction if there is any error.

Mr. TOWNSEND.—Yes; if there is any error I want to know it.

Q. I show you five photographs and ask you if you can identify the machine or machines illustrated in those photographs.

A. Yes, sir. This is the 24-P closing machine.

Mr. TOWNSEND.—I will ask that this be offered fered as Defendant's Exhibit "N-1."

A. That is the one we saw this morning. This also is a photo of our 24–P machine.

Mr. TOWNSEND.—I will ask that this be offered as Defendants' Exhibit "N-2."

A. This also is a different view of the 24–2 machine seen this morning.

Mr. TOWNSEND.—I will ask that this be offered as Defendants' Exhibit "N-3."

A. And this is one view of a cap feed and of the increased can feed of the 24–P.

Mr. TOWNSEND.—This I ask to be offered as Defendants' Exhibit [245] ''N-4.''

A. And this is a different view of the same.

Mr. TOWNSEND.—This is a plan view of "N-4," is it not? A. Yes, sir.

Mr. TOWNSEND.—I offer this as Defendants' Exhibit "N-5."

Q. I understand that Exhibits "N-1," "N-2," and "N-3" are all photographs of the same machine, and the same 24-P that we saw this morning, are they? A. Yes, sir.

Q. And that was operated out there?

A. Yes, sir.

Q. Have you the device here in court shown in the photographs "N-4" and "N-5"?

A. Yes, sir.

Mr. TOWNSEND.—This device I will ask be received in evidence as Defendants' Exhibit "O," and with the device there is also a loose can and a loose cap, which is to be considered as a part of the exhibit.

Mr. BLAKESLEE.—We are to understand, then, that this device Exhibit "O" is the device that was photographed in "N-4" and "N-5"?

Mr. TOWNSEND.—Yes.

Mr. BLAKESLEE.—And has been used in con-

nection with the 24–P machine shown in Exhibits "N-1," "N-2," and "N-3"?

Mr. TOWNSEND.—It is identical with it. We haven't dismanteled the one in evidence.

[246] The MASTER.—This Exhibit "O" we saw this morning is a separate device, isn't it?

Mr. TOWNSEND.—Yes.

Mr. BLAKESLEE.—Ask him if it is identical with it.

Q. (By Mr. TOWNSEND.) How does this Exhibit "O" just referred to, and represented in the photographs "N-4" and "N-5," compare with the corresponding devices we observed in the 24–P operating and represented by Exhibits "N-1," "N-2," and "N-3"?

A. Identically the same.

The MASTER.—Exhibits "N-1," 2, 3, 4, and 5, and Exhibit "O" will be received.

Mr. TOWNSEND.-May I suggest this:

Q. Your answer would be qualified to the extent that in Exhibit "O" only one carrying arm is shown, whereas there would in the actual operation be five arms?

A. Yes, sir. The one was just put on there to show it.

Q. (By the MASTER.) Are there five arms in the machine? A. Five arms.

The MASTER.—The plaintiffs' machine has four.

Q. (By Mr. TOWNSEND.) I show you a folder, or two-leafed circular of the Angelus double seamer

No. 14–P and ask you if you recognize that circular as a publication put out by the defendants?

A. Yes, sir.

Q. And do you recognize the machine inside of the cover and on the second page?

[247] A. Yes, sir.

Q. Marked "Patented, Angelus Double Seam Closing Machine." A. Yes, sir.

Q. (By Mr. BLAKESLEE.) Were these photographs "N-1" to "N-5," inclusive, taken under your direction and supervision? A. Yes, sir.

Q. You were present at the time? A. Yes, sir.

Q. And to your own knowledge do they correctly and accurately represent the things shown in them?

A. Yes, sir.

Q. (By Mr. TOWNSEND.) Does this cut of the Angelus 14–P, of this circular Exhibit "C," which circular, by the way, your Honor, I offer at this time as defendants' exhibit—correctly represent the 14–P machine as you know it, and, if not, in what particular does it differ, if at all?

A. This cut on page 2 does represent it with the exception of this feed disk which I have never seen used only experimentally at one time.

Q. Do you know whether this cut that you have referred to is the same cut that appeared in those advertisements, and concerning which that disk feature Mr. Wilson himself said he had never seen?

A. Yes, sir.

Q. This is the same cut that is used in the advertisements, apparently.

[248] A. Yes, sir.

Q. Aside from this feed disk element, the other part of the machine I understand to truly represent the 14–P as you know it?

A. Identically.

Mr. BLAKESLEE.—By "feed disk" I presume you mean the rotating disk and the parts that attend it and support it, and other attachments?

Mr. TOWNSEND.—That support it on the pedestal at the extreme right of the cut.

Mr. BLAKESLEE.—A means for driving the disk, and so forth.

The WITNESS.—I don't know. It is just the disk proper that I see. We still use the same stand only the distance here is shorter now, of course.

Q. (By Mr. TOWNSEND.) Just put a circle with this pencil around the part that is different from the commercial machine. What kind of a feed do you use on this 14–P?

A. The same feed as is used on the 24–P, that is, the feed disk, or this timer. The chain, of course, is not used on that.

Q. By "timer" do you mean a timer for the cans?

A. Yes, sir; to separate cans entering in there.

Q. On page 3 of this same circular, Exhibit "C," appears a cut which is marked "Cut 'C' Automatic Cap Feed." Have you seen that feed represented in that cut before? A. Yes, sir.

[249] Q. Do you use it? A. Yes, sir. Q. Where?

A. On the 14–P and also on the 24–P.

Q. Does the cut shown there appear in the structure of Exhibit "O"? A. Yes, sir.

Q. On the back of this circular, on the fourth page of it, is a perspective entitled "Detailed Cut of Angelus Double Seam Head With Cone on Shaft." Will you state what that refers to, and if you use it, and where?

A. That is a double seam head used on the 14–P and also the 24–P.

Q. Have you here a physical structure corresponding to this cut of the double seaming head?

A. Yes, sir.

Q. How does this device you have just exhibited compare in correctness of detail with the double seaming devices we saw this morning on the two machines? A. Identical.

Q. For how long has such a seaming head been used to your knowledge by the Angelus Company?

A. As long as I have known Angelus machines.

Q. How long is that?

A. It was the first year I went with the American Can Company that I saw Angelus machines, and that was in 1915.

[250] Mr. TOWNSEND.—This device just referred to by the witness is offered as Defendants' Exhibit "P."

The MASTER.—Let me ask: Do they use them this size?

A. No, sir not that size.

That is just an identical model.

The MASTER.—Then this is a smaller size?
A. It is a smaller scale.

Q. (By Mr. TOWNSEND.) What size of can is this "C" adapted to, or is it just merely a model?

A. It is just merely a model; it cannot be installed on a machine.

Q. It is a little smaller than any that are used? A. Yes, sir; in proportion.

The MASTER.—Exhibit "P" will be received. You identified this as being used in the 24–P and 14–P machines, didn't you?

Mr. TOWNSEND.—Yes, sir. Is Exhibit "C" received in evidence?

The MASTER.—Exhibit "C" will be received.

Mr. TOWNSEND.—This Exhibit "C" is identical with Exhibit "C" attached to the bill of particulars furnished by the defendants.

The MASTER.—Couldn't it be shown on these blue-prints where the double seamer is?

Mr. TOWNSEND.—Q. At the suggestion of the Master, will you be good enough, Mr. Augensen, to mark on Exhibits "A" and "B" by the words "double seamer" where the same appears, corresponding to Defendants' Exhibit "P"?

[251] A. Yes, sir. (Witness marks.)

Q. I show you another publication of the defendants and ask you if you know what that is?

A. Yes, sir. That is a general catalog printed in Spanish of all types of machines built by the Angelus Sanitary Can Machine Company at the time it was published.

Q. Do you know when that was published?

A. I think that was in 1918.

Q. That would be before your time, wouldn't it?

A. Yes, sir. I was only reading that from the catalog.

Mr. TOWNSEND.—Well, we will prove publication later.

Q. Is this a publication in general distribution at the present time by the Angelus Company, to your knowledge? A. Yes, sir.

Mr. TOWNSEND.—I will offer this as Defendants' Exhibit "Q," and then prove it up further.

Q. Will you run through this circular Exhibit "Q" and by reference to the pages tell us what the machines are that are there advertised? I ask that not only for brevity's sake but because the language is Spanish here, and we would like to know what the machines are.

The MASTER.—Have you such a catalog in English?

Mr. TOWNSEND.—I don't know whether we have.

The WITNESS.—They are at the printers's now, and being published—that is, new ones. On page 6 there is a cut and description of the Angelus gang slitter.

[252] Q. What do you mean by a "gang slitter"?

A. That machine is used to slit a sheet of tin into certain sized strips for can bodies and for punching.

[253] A. On page 12 there is shown a cut and

description of the Angelus 14–P machine. On page 14 there is a cut and description of the double seam head used on the 14–P.

The MASTER.—That is Exhibit "P," is it? That is, the model Exhibit "P"?

A. Yes, sir. On page 15 there is a view showing the second operation, or compression roll mechanism. On page 16 there is a cut of the cap feed used on the 14–P machine. On page 17 it shows a view of the gearing and drive shaft of the 14–P. On page 19 there is a view showing the Angelus 14–P, or 19–P, rather. The 19–P is the gallon size, being identical, only larger in proportion, to the 14–P. Shall I continue on through the book?

The MASTER.—Leave out any that are not 14–P or 24–P, or parts of them.

A. That is all.

A. In the lower right-hand corner of page 23 there is a cut and description of the can tester which was used in our experiment at the Angelus Sanitary Can Company plant this morning in testing those cans.

Q. (By Mr. TOWNSEND.) Is the defendants' product limited to the making of the 24–P's and 14–P machines? A. No, sir.

[254] Q. What other kinds of machinery does the defendant make?

A. It is making all machineries for the manufacture of cans, sanitary tin cans.

Q. Just specify what those are.

A. That would be the slitter, the body maker, the

flanger, the double seamer and the tester, and also punch presses and curlers, and there is one other machine they make, the cement mixer, or compound mixer, that mixes the compound that is used in those caps.

[255] Q. (By Mr. TOWNSEND.) Taking any of the exhibits that have been referred to here, the blue-prints or the models or the photographs, I wish you would briefly explain what took place this morning in the operation of those machines, and how the 14-P operates, and how the 24-P operates, and make your statement as full as you desire on the record and refer to any of these exhibits that you wish; and if you desire to put in any notations on any of the blue-prints in referring to any of the parts so as to know exactly what you are referring to, you may do so. And I would say your Honor, if there are any points suggested by the witness that you want further light on or that you saw in any different way, don't hesitate to interrupt the witness and have the thing cleared up.

[256] The MASTER.—I suggest that you refer always to the exhibit number. For instance, in starting the description say "Defendants' Exhibit 'A' shows 14–P" and so on, or whatever it is.

The WITNESS.—Thank you, I will. Defendants' Exhibit "A" shows a plan and side elevation of the main working parts of the 14-P double seamer, showing in the plan view of this exhibit.

A. The cans are carried by a chain feed, not shown in the blue-print Exhibit "A," but shown on

page 2 of Exhibit "C," which chain feed I will mark "2," and are carried directly under the cap feed mechanism 3; and before reaching cap feed mechanism 3 the can acts on a trip lever, a no-canno-cap trip lever, which I will mark 4 on Exhibit "C," which trips the cap feed mechanism and allows the cap to be cut off from the rest of the stack, which stack I will mark 5 in Exhibit "C." Referring to Defendants' Exhibit "A," figure 1, the cap is pushed forward with the can and directly above same, which cap I will mark 6, being pushed forward until directly above recess in star wheel, into which can and cap is pushed.

A. I will mark the location of the can and cap as 7.

[257] A. I will mark those 8. The cap being pushed by a center pusher, which I will mark 9 on Exhibit "A." When the center pusher has come to the end of its stroke the cap is directly over the recess in the star wheel, which I will mark 10. There is arranged directly above the recess in cap feed mechanism 3 pusher, which I will mark 11.

The MASTER.—That works vertically, doesn't it?

A. Yes, sir, that works vertically, and is only a factor of safety in getting the cap down into the recess so that there will be no hanging up in the cap.

Q. Does it leave a space above the can top?

A. Yes, sir, there is a space above the can top and the can top pusher. It is just to start the cap

through. It doesn't force it completely down with the can. Then the star wheel which I have marked 10 revolves intermittently.

Q. It revolves clockwise, in other words.

A. Yes, sir. As the can top and can are carried together there is a tapered upper guide, under which can and cap ride, this taper being to gradually force the top down on to the can in case of packing foodstuffs that stick above the can, and is completely [258] down on can when it reaches the first operation seaming station, which is so shown.

Q. Mark by the character or reference 11 the tapered guide you referred to that serves to press the cap down on the can.

A. The tapered guide is not shown on this print.

Q. Can you show it in pencil schematically?

A. Yes, sir; which I show by the figure 12.

Q. What serves to carry the cap forward during that progressive movement of the star wheel 10?

A. There is a shoulder or finger on each recess in this star wheel No. 10 that carries the cap forward to first operation station with the can.

A. I will mark it 13 (marks). After can and cap together have been delivered to first operation seaming station there is what we call a lower chuck, which I mark 14 that raises can and cap together, and forces same into seaming head, which I will mark, in Exhibit "C," 15. The first operation of seaming is performed by two rollers, which I will mark "Part of Exhibit 'P'" by the rotating

around the can, the can standing still, and Exhibit "P" revolving around the can, gradually rolling the top and body of can together.

Q. (By the MASTER.) How many revolutions did you say?

A. There are six revolutions in this operation. After [259] the seaming operations are completed the can is transferred on to the second operation seaming station, which is so marked here in Exhibit "A," Fig. 1.

Q. Now, how is that pressure applied? Is it the same pressure at the first revolution as at the last, or what?

A. No, sir. The rolls are gradually brought in at each revolution—are gradually brought in all through the operation, and then released quickly to allow the can to come out.

Q. And that bringing in is effected by what means?

A. By means of the cone, said cone being stamped with the figure "2" on said Exhibit "P."

A. The transfer from one station to the other is done by means of a star wheel that carries the cans from one to the other.

Q. A star wheel, by gripping arms?

[260] A. Gripping arms; or I would call them recesses.

Q. Well, what keeps the can from sliding down? A. There is a shoulder in its recess.

Q. (By Mr. TOWNSEND.) And to keep the cans in the recess from falling outwardly—

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(Testimony of Roy Augensen.)

A. There is an outward curved rail.

Q. Will you indicate roughly there in pencil this rail that keeps the cans in the recess, and mark that?

A. I will mark that "17" on Exhibit "A," Fig. 1. At the second operation seaming station there is also a lower chuck which I will mark "18," which raises or forces the can to the upper chuck. Here the can revolves, being driven at both ends by upper and lower chuck, and finishing seam, or ironing out the seam, is performed by the action of a compression roller against seam, which I will mark "19," and is operated by a lever "20" in connection with cam "21," which I will so mark in Exhibit "C."

Q. Now in connection with the spinning of the can on the second seaming operation, how is that spinning effected—by the upper or lower chuck?

A. By both the upper and lower chuck, both being driven.

[261] A. Yes, there is shown the driving means of the upper and lower chuck of second operation seaming station, which drive means I will mark "22" and "23."

Q. Now mark the lower and upper chucks 18 and 18', respectively.

A. (Marking.) 18 and 18'

Q. Now, on Fig. 2 of Exhibit "A" can you illustrate the means for operating the can on Exhibit "P"? A. Yes, sir.

Q. Just mark the cone "Exhibit 'P'" and mark

the lever for operating that by the next character— 25, is it not?

A. (Marking) This cone is operated by lever "25" and cam "26." Now I have applied the same characters to the same elements in all of the figures as far as seems necessary. Fig. 27 shows knockout mechanism for releasing can from upper chuck when seaming operation is completed.

Now we left the can here at the second operation. It proceeds on intermittently until it is carried out of a recess in turret by ejector paddle, which is not shown but was seen on the 14–P machine that was operated this morning.

Q. (By the MASTER.) Where does your can first stop in 14–P while being operated?

A. It is carried along here and pushed into here and carried to that point there (indicating on Exhibit "O"). That is, after the cap is placed on to the can and carried on—

[262] Q. That is, the cap is clear down on top before it stops?

A. Yes, sir. It is carried down gradually from the time it drops until it reaches this position here.

Q. (By Mr. TOWNSEND.) Indicate the first point of stop by an arrow and just call that "First stop of can."

(Witness marks exhibit.)

Q. (By the MASTER.) Now your next stop.

A. The second stop is indicated by the words "Second stop."

Q. (By Mr. TOWNSEND.) Now I wonder if

we all understand each other. The Master's question seemed to involve two matters, or you apparently understood it was two matters. The Master asked, as I understood, where was the first stop of the can as it came along, and you had previously described how the can was gradually fed down under the guide which you marked "12" on Exhibit "A," so that the cap progressed along as pushed by the finger "13" some distance.

A. Yes, sir.

Q. Now, let us have it clear as to where the cap comes down on the can—

A. Completely under the can?

Q. Yes.

The MASTER.—I thought he went into the full details of that. As I understand it, the can does not stop until it is picked up by the revoluble disk used to feed it into the first station here; then when that disk revolves a portion of [263] the way it stops, then it goes on and stops again, and then the can goes on to the first station.

A. That is correct.

Q. (By Mr. TOWNSEND.) And where is it that it finally gets the cap?

A. Completely down on to the can?

Q. Yes.

A. Just as it goes under the first operation head.

Q. (By the MASTER.) Under what?

A. The first operation double seam head, Exhibit "P."

Q. You mean when it gets to the first station?

A. Yes. Then it is exactly down on to the can.

Q. Then it stops twice before it gets under "P"?

A. Yes, sir.

Q. And what keeps it from spilling the contents before the can top is clear down?

A. Well, on the 14–P there is a certain amount of spill.

The MASTER.—All right.

Q. (By Mr. TOWNSEND.) That depends on the speed you operate it, I suppose?

A. The speed, and also on what product is being packed. Of course there is no spill to fish.

Q. (By Mr. BLAKESLEE.) May I ask right there: In your larger sizes of cans with the 14–P is it not necessary to slow down very much to prevent that slopping over at the tops of the machine between the stations?

[264] A. That is true in any machine.

Well, now, how about 14-P; isn't that true?

A. You can run a smaller can faster than a large can.

Q. And at what rate per minute can you operate a 14-P with a gallon can?

A. That is a 19–P we call it; that is identical with the 14.

Q. Well, the 14 type, with a gallon can for capping sloppy contents.

A. They have been run thirty a minute.

Q. (By Mr. BLAKESLEE.) What is the slowest you have seen it run?

A. Twenty-two cans a minute.

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(Testimony of Roy Augensen.)

Q. But under all those conditions the 24–P can operates faster, can it not, with similar materials and similar sized cans? A. Yes, sir.

[265] A. Well, I don't just remember what size cans were running at different places and the different speeds; but you can run a smaller can, say 1-pound tall, faster than you can a $21/_2$ -pound or 3-pound can.

A. The speed the 14–P was operating this morning?

Q. Well, yes; what was it operating at this morning there? A. At 60 cans a minute.

[266] Q. And what have you seen it operating at in plants?

A. 75 is what I have seen it operate on on apricots in $2\frac{1}{2}$ -pound cans.

Q. (By Mr. TOWNSEND.) Now, just briefly state in Exhibit "P" the operation of the can itself on the first station and on the second station, as to its rotation and non-rotation.

A. The can on the first station is stationary, and on the second the can revolves, during seaming operation.

Q. (By Mr. BLAKESLEE.) May I ask the witness where it was he observed that 75 per minute speed with apricots?

A. That was in Ontario, California, at the Golden State or the—there is the Co-operative and one other. It was not the Co-operative but the other plant. Now if that is the Golden State or Golden West—

A VOICE.—Golden State.

A. Golden State. They had some 14–P machines running there.

[267] Q. Do you know what year that was?

A. That was this last season.

Q. (By Mr. TOWNSEND.) In the fall of 1922?A. Yes, sir.

Q. Now, will you briefly describe the operation of 24–P as it was noted this morning, and refer to any drawings or photographs that you desire to refer to in that connection?

A. Referring to Exhibit "B," the cans enter under disk marked "10" and are carried on to table "19," these being separated or timed by the action of bell cranks or fingers marked "15." These fingers 15 separate the cans with a horizontal action between said can bodies.

Q. (By the MASTER.) Is there any vertical motion in those fingers?

A. No, no vertical motion.

Q. (By Mr. BLAKESLEE.) The outer ends of the lower portions, or the toes, rise as the bell cranks rock, don't they, to an extent?

Mr. TOWNSEND.—There is only such motion as is incidental to the oscillation—

Mr. BLAKESLEE.—Well, please let the witness answer.

A. Well, that would be radial, I would think.

Mr. TOWNSEND.—We will have a portion of the machine illustrating that feature as soon as it can be assembled at the plant. Probably it will be 360 Angelus Sanitary Can Machine Co. et al.

(Testimony of Roy Augensen.)

ready to-morrow. And that will show the action of the bell cranks.

[268] Mr. BLAKESLEE.—I am trying to avoid lengthy cross-examination by putting a few little questions as we go along.

Q. (By Mr. BLAKESLEE.) Isn't there a lift to the forward end of the toe as each one rocks?

A. Yes, they rock, but they sometimes won't rock.

Q. They are intended to rock, are they not?

A. In case of necessity they are. If the cans come together, or if a can should come exactly right, they will not rock; it will just pick the can up. Now, these fingers 15 are mounted on a turret here marked "14," and are operated by a cam 16.

A. Yes, sir. When fingers 15 reach a point which I will mark "50" the cam takes action on said fingers and throws fingers 15 outwardly, thus increasing speed of can from point 50 until received in pockets 20. From this point they are increased gradually until they reach the first operation seaming station.

[269] A. (Referring to Exhibit "O.") Here the pocket receives can delivered from first timing turret marked "14" in Exhibit "B," and as they move on the pocket increases in speed by means of a chain carrying lugs riding over a cam, which is not shown here, but it is shown on the machine that was demonstrated; yes, it is shown in Exhibit "B" by figure "23," in the side elevation.

Q. And how would you describe the circumferential travel of this feed arm on Exhibit "O" which

carries the can pocket— [270] as a variable speed or—

A. Yes, sir, it is a variable speed, increasing as it goes, and after it has delivered the can under first operation seaming station it then again slows up to receive another can delivered by timing turret 14.

Q. Now, in this accelerated speed of the can and all, does the shaft around which the feed arms travel vary its speed? A. Yes, sir.

Q. The shaft itself. Does it travel fast or slow, or does it keep a uniform speed?

A. The shaft travels the same speed. That is marked "21."

Q. Then I understand that the shaft 21 of Exhibit "B" rotates uniformly at the same speed at all times? A. Yes.

Q. Although the can pocket spacing arms which are marked "20" travel at a variable speed in their orbit about the shaft 21? A. Yes, sir.

Q. Now, what is the function of that variable speed?

A. To get away from any spill by jerky feeds, increasing [271] gradually from one speed to the other. To get the can gradually through. To carry the high speeds without spilling. I might say that we increase from point marked "50" to point marked "70" from 5-inch to 11-inch travel.

Q. (By the MASTER.) What do you mean by 5-inch travel?

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(Testimony of Roy Augensen.)

A. Well, 5 inches per second to 11 inches per second.

Q. (By Mr. TOWNSEND.) And from 60 to 70 what is your acceleration there, do you recall?

A. From 60 to 70 it is 7 to 11. It increases from 5 to 7 between 50 and 60, and from 60 to 70 it increases from 7 to 11.

[272] A. As the can passes a point which I will mark 80 the can acts upon trip lever 28 which trips cap feed mechanism, allowing cap to be cut off, and on the return stroke of cap feed mechanism the cover is pushed ahead by a pusher, which I will mark "81," to position directly above the can's travel, where finger 24 carried by pocket 20 will pick up cap and carry same directly with can to first operation seaming station, which is 70. That is the end of the stroke, you see, or the increase. That is where the first operation seaming station receives the can.

Q. At approximately what point does the cap finally come down on the can; does it come down instantly or gradually?

A. The cap being carried down gradually on top of the can and actually being placed on the can, the center of cap being the distance of he diameter of the cap away from the center of the double seam head as shown in Exhibit "P."

Q. Mark that point where the cap comes down finally on the can as "82."

[273] A. The finger is raised and lowered in the same relation as the cap is carried down on to

the can by means of a cam which I will mark here "83." Now, here the finger is down; as it travels it rises up to catch this cap and then it comes down gradually.

Q. (By the MASTER.) Is there any interruption in the movement of the can up to the point you have now carried it?

A. There is no interruption; no, sir.

Q. A continuous motion?

A. A continuous motion.

[274] A. When the cap is cut off in the 14–P the cap drops on to a plate that supports the cap and is carried forward on that plate, the same as in the 24–P feed, and delivered directly above the pocket in the star wheel. That delivers can and top together the same as this pocket in this what we might call star wheel (indicating on Exhibit "O").

A. After it has been delivered it is carried by a fiinger mounted on the said top, with the can, and it is forced down by means of an upper guide on to the can. And the same way here.

A. Yes, 24–P. The cap is carried down an incline and forced down on top of the can just before it reaches the seaming station.

[275] A. The cap is supported by these rails which are marked 26 and 27 in Exhibit B in Figure 1, and is delivered by a finger carried by said pocket, and gradually forced down on top of the can by a bracket to which these rails are fastened.

Q. (By Mr. TOWNSEND.) On this model Exhibit "O," approximately to the end of the tan-

gential rails here appears to be a cross metal piece, which I will ask you to mark with a sharp instrument with "X."

A. (Witness marks.)

Q. And a tin guide extending from "X" around in the same direction, extending circumferentially, which I will ask you to mark "Y."

A. (Witness marks.)

[276] Q. And this tin guide, Y to X, connects with a plate which is stamped "419." Between plate 419 and the radial bar X appear two little flanges, these flanges being below and beyond the rails which have carried the cap. What are those for?

A. Those flanges that Mr. Townsend spoke of are to receive the flange of can and can cap where said can and cap meet, and are forced down by plates marked 419 and 420.

Q. And that is all done before it gets to the first seaming station? A. Yes, sir.

The MASTER.—And then the can passes in a plane that doesn't raise or lower at all?

A. It doesn't raise or lower. The cap is brought down on to the can. The can stays at the same level all through the machine except when the lower chucks raise it up to the seaming head.

Q. (By Mr. TOWNSEND.) Right there, is there any difference in operation where you have a can particularly filled with sloppy material, traveling always on the same horizontal plane as it does in this device 14–P, and 24–P, and shown by defend-

ants' Exhibit "O," and having the cap travel down to meet the can, than from a situation where you have the can gradually traveling upward to meet a cap? A. Yes, sir.

Q. Explain what that difference is and what it amounts to.

[277] A. When the cap is carried down on to the can the can is carried at the same level, not being tilted in any way. There is no spill to the cap and it is carried on down with the can. By carrying the can at the same level and bringing the can up the can is tipped and therefore can spill some of the brine out of the can as it comes up.

The MASTER.—What did you say was the difference between the method of carrying the can top in 14–P and in 24–P through these arcuate rails? They both use the finger, don't they?

[278] A. They both use the finger to carry the cap.

Q. (By Mr. BLAKESLEE.) To perch the cap?

A. The 14–P has the finger to carry the cap or advance the cap with the can. That is mounted on a pocket that carries the can.

Q. (By the MASTER.) And the pocket carries the can top as well as the can?

A. Yes, sir. And then on the 24–P we have a pocket and a finger mounted thereon to carry the cap and the can together.

[282] Q. In 14–P the cap, after being delivered over the top of the can, has what sort of a travel? Circumferential or [283] otherwise?

A. Circumferential with the can.

Q. In 24–P, represented by Exhibit "O," after the cap is delivered over the can what sort of a travel does the cap have with respect to the can: circumferential or otherwise?

A. Circumferential, yes, sir.

Q. In 14-P you have referred to the rails 12 and 30, and their function is what?

A. To hold the cap into pockets which are used to deliver the can and cap.

Q. In other words, those rails are for the purpose of maintaining the circumferential travel of the can cap while it is progressing to the can?

A. With the can to the first operation sealing station.

Q. As I understand it, the cap is delivered actually on the can just shortly before it reaches the first seaming operation?

A. Onto the can; but they are delivered together; of course; not fastened together, but delivered together.

Q. In 24–P the function of those curved rails is what?

A. To hold the cap and can in unison, or together, as they are fed to the first operation seaming station.

Q. In other words, to maintain the relative circumferential movement of the cap with respect to the can? A. Yes, sir.

Q. (By Mr. BLAKESLEE.) But before the cap comes onto the can, [284] is that correct?

A. After, also.

Q. (By Mr. TOWNSEND.) And in both the 14–P and the 24–P the advance of the cap through its circumferential movement is done by what? A finger you referred to, I believe.

A. By means of a finger mounted on the pocket, which is marked 13 in Fig. 1, Exhibit "A," and 24 in Fig. 1 of Exhibit "B."

Q. And in each case it seems apparent that the cap is gradually fed down onto the can during the circumferential movement of the two together, and finally deposited on the can before it gets to the first station? A. Yes, sir.

Mr. TOWNSEND.—Pardon me for assuming to ask leading questions, but I was only summarizing.

The MASTER.—That is all right. There is this difference, as I understand it, in the two mechanisms: The 24–P feeds the cap down gradually.

A. Yes, sir.

Q. Which the 14-P doesn't do?

A. The 14–P feeds the cap down gradually when canning, say, peaches or apricots, where they are food products sticking above the can and the cap is held above the can by these products, and that upper rail acts to guide the cap down onto the can, guides it down on the can before it gets to the seaming station. If that were not there when it came to the seaming station it would push the cap off.

[285] Q. (By Mr. BLAKESLEE.) But in

(Testimony of Roy Augensen.) 24-P the cap is guided down on the curved rails gradually to the can, is it not?

A. Yes, it is fed down gradually onto the can.

Q. Riding on the rails? A. Part way.

Q. (By Mr. TOWNSEND.) Just continue with the description of the operations in the 24–P machine. You have brought the can and cap now to the first seaming station.

A. After the cap and can are delivered directly under the first operation seaming head, Exhibit "P," which I will mark on Exhibit "B" Figure 1, the can and cap together are raised up to said seaming head by means of a lower chuck marked number 29 in Figure 2 of Exhibit "B." The can is held stationary between an upper chuck, which is not shown here but is shown on Exhibit "P," and lower chuck number 29 in Fig. 2 of Exhibit "B," and are held in that position. The double seam head, which carries rolls, which I will mark "84," revolves around the stationary can, gradually rolling the top and body of can together. While this is being done the can and double seam head are advanced with the turret, and together, until the seaming operation is completed.

Q. Do you mean the first seaming operation?

A. Until the first seaming operation is completed, and is released from the upper chuck and, rolls.

Q. How many times does the seaming head P revolve in machine 24–P in forming the first seaming operation?

[286] A. It revolves six times.

Q. That is the same as you have stated it did in 14-P?

A. Yes, sir. The can is then transferred to the second operation station and raised by lower chuck 33 to the upper chuck which is marked 34, both upper chuck and lower chuck being driven in unison, and clamping the can between the same rotates can, and by action of cam 36 on a lever, which I will mark "85." Said lever, carrying roll 34, is gradually brought in toward spinning can, the can rotating five times from the start of the action upon the can by roller 34, until roller 34 is released. Then the can is released and ejected from machine by the ejector paddle, which I will mark "86."

Q. How does seaming roller 24 of Angulus 24–P, Exhibit "B," compare in operation with the seaming roller 19 of Angelus 14–P, Exhibit "A"?

A. The roller, as I stated, in Exhibit "B" of the 24–P closing machine is brought in and out by means of a lever and a cam. In the 14–P in Exhibit "A" the roller 19 is brought in and out by means of lever and a cam. As the second or finishing seam is performed and the can is spinning, the can is also advanced with the turret to its point of extraction, or the finish of the seam.

Q. (By the MASTER.) What do you mean by turret?

A. The turret is the second station that carries

the four spindles, the second operation seaming station that carries the four spindles.

[287] Q. (By Mr. BLAKESLEE.) In the revolving part in which the cans are carried the second seaming operation is performed?

A. Yes, sir.

Q. (By the MASTER.) Isn't there a first turret?

A. Yes, sir, there is a first turret or first station that revolves, carrying the cans between two spindles while the first operation seam is performed.

Q. (By Mr. BLAKESLEE.) By Exhibit "P"? A. By Exhibit "P," yes.

Q. (By the MASTER.) How is the can trans-

Q. (By the MASTER.) How is the can transferred from one turret to the other?

A. It is transferred by means of a 3-pocket star wheel.

Q. And the under support for the can is what?

A. The under support while being transferred is a table, which I will mark "87."

Q. (By Mr. BLAKESLEE.) Mark the star wheel you have referred to, please.

A. The star wheel is marked "32."

Q. And that has five pockets in its periphery?

A. Three pockets.

[289] Q. (By Mr. TOWNSEND.) Will you just briefly refer to the seaming operations in the two machines 14–P and 24–P by comparison, for the first station and the second station in each?

A. In the 24-P the first seaming station and

seaming operations are identical with the first seaming operations in the 14–P, the can standing still and the rolls revolving around the can to do the double seaming. In the second operation in the 24–P the can is spun and the finishing seam performed by a roll pressing against the spinning can. In the 14–P it is identically the same, the can spinning and the roll acting against the spinning can to make the finishing seam.

[291] Q. This morning at what speed of operation or can delivery did you run the 24–P? You have referred to the speed of the 14–P as being approximately 60 cans per minute.

A. Yes, sir. The 24–P was run at two different speeds. At first we ran the 24–P at 125 cans per minute, and later on shifted the machine and it was driven off of a larger pulley, and was run at 210 cans per minute.

Q. What do these two speeds represent relatively? Do they bear any relation to what is done in actual practice with these machines, or was that apparently display run you made this morning?

A. It is practically used; it is no display. We don't intend to put on anything like that. It is just what we can do and what we will do wherever we put the machines.

Q. (By the MASTER.) It was to indicate the speed at which filled cans were operated through the machine, and 210 was where they were putting on the bottoms of the cans? A. Yes, sir.

Q. (By Mr. TOWNSEND.) What speeds do you know this 24–P to be run at for filled cans?

A. It is being now run at 128 cans per minute.

Q. With filled material?

A. Filled with pork and beans—cans filled with pork and beans.

Q. What has been the highest speed that you know of for running it with empty cans and seaming cans at that speed?

[292] A. 220 cans per minute.

A. Yes, I tested two cans, one a finish seam and one a [293] first operation seam. The finish seam did not leak when the pressure gage reached its limit, which was 40 pounds pressure. The first operation seam held 15 pounds pressure before it leaked.

Q. (By Mr. TOWNSEND.) Will you just produce the can that was double seamed on both ends and withstood the 40 pounds pressure without collapse?

A. Yes, sir. This is the can we tested that held 40 pounds limit of the pressure gage and did not leaked.

Mr. TOWNSEND.—Let this be marked Defendants' Exhibits "S."

Q. Which end of this Exhibit "S" was double seamed in the two operations on the 24–P this morning.

A. The end that is marked with the cross and the letter S.

Q.. What kind of a machine put the other end on, or where did you get the can?

[294] That is an American Can Company can.

Q. (By Mr. TOWNSEND.) Have you at any time ever made tests or seen tests in excess of 40 pounds?

A. Oh, yes. There are seams that I have held at 65 pounds.

Q. What machine was this can Exhibit "S" double seamed on this morning?

A. That was double seamed on 24–P.

Q. And at what speed was that run when you made that seam? A. At 210 cans per minute.

A. You referred to a test of a can on which the can was only run through the first seaming operation by the rollers [295] similar to Exhibit "P."

A. Yes, sir.

Q. Can you produce the can that you tested?

A. Yes, sir. This is the can that was tested, and this can held 15 pounds pressure before it leaked, and the end that was put on is marked with two crosses.

Q. Will you mark that can you just referred to as Exhibit "T"? A. (Witness marks.)

Q. At what rate of speed was this top put on by the first seaming roll shown by Exhibit "T"?

A. That was seamed when the machine was running 210 cans per minute.

[296] A. This was run right straight on and kicked out at the other end, the one with the finish seam marked S; and this one marked T, of course

it had to be taken out before it reached the second operation turret so it was only run through the first operation.

[297] Q. I show you now a can which is approximately 3 inches in diameter, and bears the mark "No. 2, First oper. 12–22–22, Weber," this being one of the cans that Mr. Weber marked at my instance on our visit the other day, on that date, to the plant of the Pacific Company, and ask you if you have seen that can before. A. Yes, sir.

Q. Tell us what has happened to it.

A. I proceeded to test this can the first operation seam but on the first downstroke of the pump the bubbles came up from all around the seam.

Q. Approximately what pressure did you get from that can on that test before it leaked?

A. I couldn't say as to what pressure, but the air went through there and out the other end where it was leaking.

Q. Did you get 15 pounds?

A. No, sir; it was a fraction of a pound.

Q. You mean the first stroke of that pump that was operated this morning it showed signs of leakage? A. Yes, sir, it showed bubbles.

Q. Were you able to make and register as to the pressure it stood? A. No, sir.

[298] (By the MASTER.) What was those little indentations there in the can, or cuts in the edges?

Q. (By Mr. TOWNSEND.) What are those indentations?

A. I filed that seam to see the construction of it.

Q. When was that done? Before or after you made the test?

A. That was after I made the test.

Q. In what position was the can at the time you made the test?

A. It was whole. There was nothing done with it.

Q. And you filed it afterwards for what purpose?

A. To see why it didn't hold the pressure.

[299] Q. Are you able to state from your observations why it has not held?

A. The only thing is it isn't rolled tight enough; it isn't tight.

Q. On this other end there is a filing and a little piece of flange on the cap turned up. What does that represent?

A. That represents the filing of a finished seam.

Q. What do you mean by the finished seam?

A. Why, after both operations have been performed.

Mr. TOWNSEND.—I will offer this can made on the Pacific machine, just referred to by the witness, as Defendants' Exhibit "U."

[300] 514 Post Office Building.

Los Angeles, California, Saturday, Jauary 6, 1923, 10:00 A. M.

(Appearances as previously noted.)
The MASTER.—You may proceed.
ROY AUGENSEN recalled.
[301] Q. What the effect is in a can filled with

sloppy material changing its direction from a horizontal to an upward inclined direction even though the can is maintained vertically at all times; and particularly in regard to the comparison of such a motion with that that pertains in the defendants' machine where the can always moves in a horizontal plane and the cap comes down to meet the can.

A. My judgment would be that a can traveling horizontally and then suddenly raised vertically, there would be more tendency to throw the sloppy material out of the can. There would be a sudden jar there.

[302] A. The Pacific machine that I observed operating on apricots was running in that plant 75 cans per minute, and—

Q. What plant was that?

A. That was at the Golden State Cannery, at Ontario, California, and also the Co-operative Cannery at Ontario.

Q. When did you observe those Pacific machines?

A. That was this fall. I don't just remember the month.

Q. At what rate was it operating at the Cooperative?

[303] A. They were running at the same speed, 75 cans per minute.

Q. Now, what have you known the 24-P to operate at under like conditions?

A. We were running the 24–P on standard packing tomatoes, which is very sloppy, at 96 cans per

minute, and on pork and beans at 128 cans per minute.

Q. And what size cans were you using in the Angelus 24–P operating at 96 on tomatoes and 128 on beans? A. $2\frac{1}{2}$ pound cans on tomatoes.

Q. And the diameter of the can?

A. The diameter was $4\frac{1}{4}$. And on pork and beans it is $3\frac{7}{8}$ diameter.

[304] Q. Do you recall the size of the can that was being operated where you timed the Pacific for 75 cans per minute?

A. I didn't actually time it. I just asked the operator there what they were running them, and also Mr. Shafer.

Mr. BLAKESLEE.—We move to strike out the testimony as purely hearsay.

The MASTER.—The motion is granted.

[306] Q. (By Mr. TOWNSEND.) Mr. Wilson, in testifying here on behalf of the plaintiffs, has stated that the Pacific has replaced the 14–P at Pomona and replaced the 14–P in the Golden State Cannery at Ontario and in the Golden State at Cucamonga, and the California Growers at Ontario and at Hemet and Riverside. What do you know in regard to that, if anything?

Mr. BLAKESLEE.—I think counsel is not correct in reflecting the record as to the 14–P at all those places.

[307] Mr. TOWNSEND.—Page 154 of the record will bear out what I have to say. I am only bringing out whether or not it is a fact that the

14–P has been displaced in those places, or all of them or any of them.

A. All that I can say about are the factories at Ontario and Pomona. Those are the only factories that I visited. And at the Golden State in Ontario there were either two or three 14–P's running on apricots at the time I observed the Pacific machine. I think they had three machines in there also.

Q. Who had three machines?

A. The Pacific Machine Company. There were three Pacific machines running there. And at the Co-operative in Ontario they still had a 19–P closing machine, which is the same as the 14–P, only a gallon size. And in Pomona when I visited that factory they were not operating, but in their lineup they had—I wouldn't say the number, but there were 14–P's in their lineup.

Q. You mean the cannery wasn't in operation at all?

A. The cannery was not in operation at that time.

Mr. BLAKESLEE.—Counsel has not fixed the time, I don't think.

Mr. TOWNSEND.—He said he observed the Pacific last fall, in 1922.

A. That was when I observed the Pacific machine.

The MASTER.—How does that disprove that they were not replaced by other machines?

Mr. TOWNSEND.—The inference that was left was that the [308] 14–P's had become obsolete

and ancient, and we are going to show that the 14–P is very much on the map to-day.

Mr. BLAKESLEE.—They may be there, but not used. The question is whether they are used, and counsel had admitted the plant wasn't in operation.

Q. (By Mr. TOWNSEND.) Are you able to state to what extent 14–P machines are in use, if at all, to-day.

A. I know of a great many and have seen a great many in use in the east and right here in the city there are a number in use.

A. There are a great number, I couldn't state the exact number, used at Heinz plant in Pittsburg for can making and also canning that is, putting the bottoms on and the tops after they are filled, and the Sears-Nichols Company, their headquarters being at Chillicothe, Ohio. They have a number of 14–P machines.

A. Ever since I have been in the can and canning game I have seen 14–P's running all through the east. I couldn't [309] state just exactly where or anything about it. I wasn't that much interested at that time. Here in Los Angeles there are 14–P's operating at E. C. Ortega's plant on Santa Fe Avenue. By the way, I think they have finished their canning season but they were running up until Christmas.

Q. How many 14-P's were running at that time?

A. I have seen them run seven 14–P's, the seven including one 19–P gallon machine. This last season there were 14–P's, as I stated before, operating in

Ontario, and in Wilmington at a fish cannery there.

Q. Your work since you have been with Mr. Guenther has been mainly inside work, has it not?

A. So far, yes, sir.

Q. Do you know, while you have been connected with the Angelus Can Company, the defendant, whether they have sold [310] any 14-P's recently, and if so, state what your knowledge is on the subject?

A. Yes, I know of them selling five 14–P's this last year, 1922. There were two sent to the Tacoma Can Company and two to Chicago to Morris & Company, and there was one sold to E. C. Ortega on Santa Fe Avenue.

Q. (By the MASTER.) What do the 14-P's sell for? A. \$1,000.

Q. And what do the 24–P's sell for? A. \$2,500.

Q. Do you know what the Pacific Closing Machine Company's machine sells for?

A. No, I do not.

Mr. BLAKESLEE.—If the Master wishes to know and counsel will permit we will make the statement they sell for \$1,950.

Mr. TOWNSEND.—Very well, I will accept your statement. We might also stipulate, as I think everybody is agreed upon it, that the Pacific Machine that we saw operating at the Pacific plant on December 22, 1922, was operating at the rate of 96 cans per minute on 27/8 inch diameter cans. That is true, is it not, Mr. Berry?

Mr. BLAKESLEE.—Was that the size of the can?

Mr. BERRY.—Yes; and that was approximately the speed.

[311] Mr. TOWNSEND.—Mark the cam on Exhibit "O" with a cross.

[312] Q. (By Mr. BLAKESLEE.) Are you sure that it was in August you saw the machines operating at the Ontario plant?

A. I don't remember stating that it was in August.

Q. When was it?

A. I wouldn't say the exact date. That could be verified by a report that I handed in to our Company. But I would just mention that it was this last season.

[313] Q. When was it you saw them back east?

A. That was at the time I was with the American Can Company; but since then I have seen orders for repair parts for 14–P machines.

Q. When was it you saw them back east?

A. I couldn't state the exact year, but it was in the time I was traveling for the American Can Company.

Q. Well, you have remembered lots of things here by stating it by months; now can't you tell us the year you saw these back east?

A. There is a lot of things I have not remembered, and not being particularly interested in these machines at that time I didn't take any particular notice.

Q. Well, don't you remember when you were traveling for the American Can Company?

A. Yes, sir; that is stated in my previous testimony, that I traveled for the American Can Company for five years, starting with them in 1915. It was some time between 1915 and 1921.

[314] Q. When was it you first knew of the defendants marketing a 24–P machine?

A. In 1922, in the month of March.

Q. That was long after you quit traveling for the American Can Company, was it not?

A. Yes, sir.

Q. Are the defendants making any 14–P machines now that you know of? A. Yes, sir.

Q. Building them now? A. Yes, sir.

[315] Q. (By Mr. BLAKESLEE.) Are the defendants making 14–P machines at present, if you know, in quantity?

The MASTER.—The objection is overruled.

A. At this present date they are not assembling any 14–P machines.

[316] Mr. TOWNSEND.—Will your Honor instruct the witness that he can answer the question as to whether they are manufacturing more than five at the present time by yes or no?

[317] The MASTER.—Just answer yes or no. A. No.

Mr. TOWNSEND.—I think that ought to foreclose any further inquiry along that line.

Q. (By Mr. BLAKESLEE.) You mean not as many as five? Is that correct?
Mr. TOWNSEND.—Now that is objected to.

The MASTER.—Yes, if they are not manufacturing more than five.

Mr. BLAKESLEE.—Well, if he means that.

The MASTER.—Proceed. I don't think they are making very many of them down there according to this witness's testimony.

Q. (By Mr. BLAKESLEE.) Do you know of any packing-house plant to-day that is using 14–P machines and 24–P machines for the same kind of service—and I mean when their plants are running, of course, not right now?

A. Pardon me. By packing-house do you mean a packing-house or a cannery?

Q. Yes, where they can fruit or other commodities. A. Yes, sir, I do.

Q. Can you mention such place?

A. Heinz & Company in Pittsburg.

[318] Q. Do you recommend the purchase of 14–P machines for the same class of canning service as 24–P machines?

A. I don't quite understand "same class of canning service."

Q. I mean to handle the same kind of products with the same kind of cans. A. Yes, sir, I do.

Q. On what grounds?

A. Why, the 14–P has always been considered and is a satisfactory machine for putting a vacuumtight top on a sanitary can, and the 24–P has also proved the same.

Q. But in no case can the 14-P compete with

the 24-P under like conditions when the factor of speed is considered; is that not correct?

Mr. TOWNSEND.—Now, that question is argumentative. If counsel wants to ask if the 24–P *is* to the 14–P, that is another question.

Mr. BLAKESLEE.—That is the same question.

Mr. TOWNSEND.—Just put it that way.

(Last question read.)

The MASTER.—He may answer.

A. No.

Q. (By Mr. BLAKESLEE.) And the difference in possible speed [319] is due primarily to the fact that it is impossible to get the same rate of speed with an intermittent machine that can be obtained with a constant motion machine. That is correct, is it not?

Mr. TOWNSEND.—Now, that question again is bad, and I object to it.

Mr. BLAKESLEE.—I am asking for the facts as to conditions.

Mr. TOWNSEND.—I want the facts brought out.

Mr. BLAKESLEE.—Counsel has asked questions as to conditions of sloppiness of contents and things of that sort, and I am asking the same question as to that factor of speed.

(Last question read.)

The MASTER.—He may answer.

A. That is correct.

Q. (By Mr. BLAKESLEE.) Now, you have seen the Max Ams machine and the Scott-Corey machine in operation, have you not?

A. I have seen a number of Max Ams machines of different types. I haven't seen the latest Troyer-Fox machines in operation.

[320] The MASTER.—He has answered that, Mr. Blakeslee.

Q. (By Mr. BLAKESLEE.) Is it not a fact that to your knowledge the Pacific machines and the 24-P machines are displacing Max Ams machines and Scott-Troyer machines in canneries?

A. Not to my knowledge.

Q. You know of no instance? A. No, sir.

Q. (By the MASTER.) In the replacing of a machine just what is done? Does the manufacturer take the old machine back?

A. That depends upon what arrangement was made between the manufacturer and the canner. In the case of the American Can Company a canner can only rent a machine from the American Can Company. In that case the American Can Company would take the machine out. Where a canner has bought, say, a Troyer-Fox machine he would have to dispose of it in some other way, the same as a piece of furniture. If you were to put in a new table you would have to dispose of the old one yourself; the manufacturer wouldn't take it back unless he gave you a second-hand price on it.

Q. (By Mr. BLAKESLEE.) Other than the Pacific machine and the 24–P machine have you ever seen a constantly operating canning machine or can-closing machine having the two turrets constantly operating with a transverse turret or table

between the two and means for performing the two seaming operations, one in each turret, in use?

[321] A. I have never seen— You mean there one seaming operation in each turret?

Q. Yes.

A. No, I don't believe there is a machine on the market like that to-day.

Q. Outside of the machines of plaintiff and defendant, of course, you mean?

A. Why, there are four seaming operations in each turret.

Q. Well, I mean the first rolling down, in the first turret, or the first forming of the seam in the first turret and the rolling down of the seam in the second turret. A. Yes, I have.

Q. Where?

A. The 14–P double-seams in the first station, or starts the seam, and finishes it in the second.

Q. But that, of course, doesn't have the other elements of my question, to wit, a first revoluble turret and a second revoluble turret and a transfer turret between. Isn't that correct?

A. Oh, a revoluble turret?

Q. Yes. A. No, I have not.

Mr. TOWNSEND.—It has a transfer means between the two stations, though, has it not?

The MASTER.—Oh, well, he will stipulate to that.

Mr. BLAKESLEE.—Well, that is not in point. It is so far [322] from the question that it is absurd.

Q. (By Mr. BLAKESLEE.) Now, referring to Exhibit "C," the circular, and the cut of the 14–P machine on the second page, when did you first see a 14–P machine having this feature (referring to Exhibit "C") which you have surrounded by a pencil marking?

Mr. TOWNSEND.—You are misinterpreting the witness's testimony. He said he never had seen that feed, and in that respect he concurred with Mr. Wilson. I think you misunderstood the testimony.

Mr. BLAKESLEE.—If that is the import of it, and counsel agrees, that is all there is to it.

The WITNESS.—That is correct. I have never seen that.

Q. (By Mr. BLAKESLEE.) In other words you have never seen a 14–P machine made with that feed on it? A. No, sir.

Q. (By the MASTER.) Those you saw were with the chain, were they not?

A. A flat chain; yes, sir. That is, besides the ones that we now manufacture.

Q. (By Mr. BLAKESLEE.) Now will you please refer to Exhibit "P," and to the bottom portion of the construction, and tell me if the flange there —which is interrupted in two opposite points to permit the rollers to operate on the can—does not center the can when it rests on the chuck for the formation of the seam?

[323] A. I am not sure that I get your question

correctly, but this flange has nothing to do with the can or cap after it is placed on to the chuck.

Q. What is the purpose of that flange?

A. In the case of an out-of-round can the cap will not fit snugly down under the can, and it may be tilted. That is a factor of safety, to know that the cap is center to the chuck.

Q. In other words, it centers the can and the cap so that the seam will be formed accurately, does it not?

A. In some instances; yes. But the can is centered by the feed pockets below.

Q. Well, is it not correct that it brings the cap and the can into centered relation so that the seam will be accurately formed between the cap and the can?

A. Read that question, please.

(Last question read.)

A. So that it will be accurately placed on the chuck. After it is on the chuck the flanges have nothing to do with it; the chuck holds it then.

Q. Now, what is it that causes it to be accurately placed on the chuck—the can?

A. In some instances, yes, and in some instances this has to shift that cover (indicating on blueprint to Master)—that bevel on the flange will shift the cover to center itself on the chuck.

Q. (By Mr. TOWNSEND.) That flange is what you call a centering [324] cup, is it not?

A. Yes.

Mr. TOWNSEND.-Let us just mark that

centering cup. Now will you indicate where the centering chuck is on the back of page 4 of the Angelus circular Exhibit "C"?

A. It is indicated here by the letters "A. S. C. M. Co." in Exhibit "C."

(Previous question read, as follows: "Q. Well, is it not correct that it brings the cap and the can into centered relation so that the seam will be accurately formed between the cap and the can?")

A. Didn't I answer that?

Q. (By Mr. BLAKESLEE.) No; there was an interruption after that.

A. Why, I mentioned: In some instances, yes.

Q. You never knew of a 24–P machine being built or used that did not have that centering flange on it, on the part like Exhibit "P," did you?

A. No, sir.

Mr. TOWNSEND.—We are perfectly willing to concede that that has been the standard practice of the defendant for at least a dozen years and perhaps longer. You will find it all set out in full and described in detail in the 1908 and 1912 Guenther patents.

[325] Q. (By Mr. BLAKESLEE.) Now, that flange which you have called a centering flange encircles the top of the can and the cap on it, does it not? A. Yes, I would say so.

Q. And when those parts are so encircled the rollers are forced inwardly to bring them to bear

upon the edge of the cap and the top edge of the can and form the double seam; isn't that correct?

A. While rotating?

Q. Yes. A. Yes, sir.

Q. (By the MASTER.) Do you mean while Exhibit "P" is rotating? A. Yes, sir.

Q. (By Mr. TOWNSEND.) What forms the seam—the centering cup or the rollers you have described on Exhibit "P"? A. The rollers.

Q. (By Mr. BLAKESLEE.) In other words, the actual rolling down, you mean, is caused by the rollers bearing upon the cap edge and the top of the can while they are encircled by the centering flange; is that correct?

A. Why, the rollers is all that really does the double-seaming.

Q. Well, that double-seaming could not be relied upon to be accurately performed if the encircling flange did not hold the can top and can in practically central relation, could they?

[326] A. If they didn't first place it there. The chuck holds the can and cap centrally. The flange is just a guide to bring it on to the chuck. It has nothing to do with the can and cap after the seam is started.

Q. But it still encircles and surrounds the top of the can and the edge of the can cap during the seam-forming operation, does it not? A. Yes.

Q. And after the seam has been formed in such manner the part like Exhibit "P" has to rise to allow the can to escape? A. No, sir.

Q. In other words, the can is lowered from it?

A. Yes, sir.

Q. In either case there is a relative movement between the part P and the chuck that supports the can to permit the can to escape from that encircling flange; isn't that correct?

A. I didn't understand you on that.

(Last question read.)

A. Yes, sir.

Q. Now, in the 14–P machine the cans and caps are fed while the machine is otherwise stationary; isn't that correct? And by machine I mean the rotating turret or the part that receives the cans and caps.

A. That is the only part of the 14–P that is stationary.

Q. Yes. The driving means, of course, are in operation generally, but that part is stationary at that time, is it not?

[327] The MASTER.—What part is that?

The WITNESS.—The turret that carries the cans to the first operation.

A. Yes, sir.

Q. (By Mr. BLAKESLEE.) Why do you call that part a star wheel?

A. Well, yes, that is my conception of a star wheel. That is the star wheel disk No. 10 on Exhibit "A."

Q. (By the MASTER.) Now, what part is stationary?

A. The star wheel here. When the can and cap

is fed in it stops to receive it and then it moves on. That is on the 14–P.

Q. (By Mr. BLAKESLEE.) Now do you consider the second timing means in Exhibit "O" a star wheel also?

A. No; it is a series of arms carrying pockets to receive can and cap.

Q. And, by the same token, the part 10 in drawing A is a vertically thick body having cavities or chambers in the edge portion or periphery into which the cans and caps are projected; isn't that correct? A. Carried, you mean?

Q. Yes. A. Yes, sir.

Q. And in the 24–P machine it would be impossible to feed the cans and caps into the machine in a direct radial direction, would it not?

A. Unless the mechanism was changed to an intermittent motion.

[328] Q. Yes; due to the fact that the motion is continuous in machine 24–P you have to feed the cans and caps on the run, so to speak, haven't you?

A. Yes, sir.

Q. And that is the reason you use the structure as shown, for instance, in Exhibit "O," so that the cans and caps are brought in in circles or curved paths outside the constantly rotating part and gradually into that part; isn't that correct?

A. Yes, sir.

Q. (By the MASTER.) Do you mean the wheel designated "10" on Exhibit "A" stops to receive the can? A. And cap; yes, sir.

Mr. BLAKESLEE.—Each time that the two are fed together.

Q. (By the MASTER.) Now you have marked on this blue-print the first stop.

A. Where the can first stops. You asked that question, where the can was first stopped.

Q. After it is fed in.

A. After it is fed in.

Q. But there is a stop up back of that where the figure "11" is marked here.

A. That is a stop, but the can is not in there as yet. The minute the can gets into the pocket it moves ahead. The can really doesn't stop until it has changed its course. It is timed accurately so that as soon as the can is fed into the [329] pocket it is carried forward to that position of first stop.

Q. (By Mr. BLAKESLEE.) And in the 14–P machine, during all operations of seaming, including the seam forming and the seam rolling down, the can and cap are carried intermittently by the same rotating member marked "10" on Exhibit "A"; is that correct? A. Yes, sir.

Q. Whereas in the 24–P machine the can and cap are carried successively by three different rotating members—to wit, the first turret, then the transfer rotating member, and finally the second rotating turret; isn't that correct?

A. While the seam is being performed?

Q. Yes, including both operations.

A. Yes, sir, that is correct, with the exception

that on the second station there is no turret or pockets which carry the can.

Q. Well, what is there? A. The two chucks.

Q. But that is still a rotating or revolving part by which the can is carried during the second seaming operation, is it not? A. Yes, sir.

Q. (By the MASTER.) There are chucks on the first turret too, are there not?

A. He mentioned, I believe, that there are pockets that carry the can. On the second turret there is no star wheel [330] having pockets to carry the can; the can is carried between the two chucks.

Q. (By Mr. BLAKESLEE.) There are, however, chucks in both the first and second revolving turrets of the 24–P machine, are there not?

A. Yes, sir.

Q. And in which of these turrets do those chucks revolve?

A. Those chucks revolve in the second turret.

Q. Why?

A. Why? We use the same seaming mechanism as on the 14–P because we found that very satisfactory and we just used it on the new model machine.

Q. You mean in rolling down the seam formed in the first turret? A. In the second.

Q. I say you use it in the second turret for rolling down the seam that has been formed in the first turret? A. Yes, sir. Pardon me.

Q. (By the MASTER.) Now let me see if I

understand this. When your can comes into the first turret it goes into a pocket which carries the can around with the chucks above and below, and then that pocket delivers it into another pocket in [331] the star wheel which carries it on to the second turret.

Mr. BLAKESLEE.—Yes.

Q. And there it is not in the pocket but is held between the chucks, and then the discharge arm carries it off at the end of the operation?

A. Yes.

Mr. BLAKESLEE.—Yes.

Q. And in the 24–P machine the caps and cans are fed to the first turret in pairs, that is, at the same time a can and a cap; that is correct, isn't it?

A. Yes, sir.

Q. In the 24–P machine, and as exemplified in Exhibit "O," after each cap is started on its travel toward the first turret it passes down and on top of spaced, curved or arcuate rails or ways, does it not?

A. It is first started by dropping onto a plate and carried along that plate until it reaches these rails.

Q. Then it travels on those rails and slightly downwardly for, I believe we agreed yesterday, some 55 to 60 degrees of a circle, isn't that correct?

A. Yes, sir.

Q. And then it passes to the first turret where it comes over the can, is that not correct? It is always over the can; when it is fed it is not dropped directly over the can but it is fed ahead directly

over the can and is carried with the can, gradually coming down onto the can, and at the point [332] where the cap first comes into position above the can it would be in registration with it and above it?

Mr. TOWNSEND.—You mean co-axially?

Mr. BLAKESLEE.—Co-axially.

A. It is about the same distance.

Mr. TOWNSEND.—He wants to know, Mr. Augensen, where the can first comes directly under the cap. Isn't that true?

Mr. BLAKESLEE.—That is it, so the center of the cap is directly over or approximately over the vertical axis of the can.

A. I will have to give a measurement from where the cap is dropped until it reaches that.

Q. Is it before or after the cap reaches the downwardly inclined spaced curved rails?

A. It is before.

Q. And from that point on the cap is always directly over the can until they both are fed into the first turret; is that not correct? A. Yes, sir.

[333] Q. And then to carry the thing further, the cap is on the can, resting on it, when they both pass into the first turret, isn't that correct?

A. Yes, sir.

Q. And defendants' machine 24–P, as partly exemplified in Exhibit "O," has feeding means for the cap whereby a cap is fed for each can, under the control of that can as it moves; that is correct, isn't it?

A. Yes, sir. You mean a no-can-no-cap device?

Q. Yes. A. Yes, sir.

Q. What is it in the 24–P machine, or Exhibit "O," that causes the cap to travel as you have just related?

A. A finger mounted on pocket which carries can forward.

Q. As shown in Exhibit "O"? A. Yes, sir.

Q. It would be impossible in the 24–P machine with its [334] constant movement of turrets and transfer means between the turrets to use the can and cap feed means, or either of them, which are part of the 14–P machine, wouldn't it?

A. With the exception of the cap feed.

[339] Q. (By the MASTER.) Let me see if I get this correctly: In 14–P and 24–P you use exactly the same device for feeding, do you?

A. Yes, sir. The only difference in the 14–P is that there is an extension of this plate with a recess in it for the cap to drop through into the pocket in this star wheel.

Q. I am referring to this portion back of the rails? A. Yes, sir.

Q. In other words, it is illustrated in this cut C.

A. Yes, sir; and I might mention that the underplate here has a slot cut in it to allow this finger to pass through. [340] That of course is not in that, but the actual mechanism that feeds the cap is the same.

[341] Q. (By Mr. TOWNSEND.) Do you mean a separate piece bolted on? A. Yes, sir.

Q. (By Mr. BLAKESLEE.) In the 14-P and

24-P machines, after a cap has been separated from the stack it is pushed forward by the intermediate finger 9, is it not? A. Yes, sir.

Q. And is guided at its edges by the side fingers 8, which move with that finger 9; is that not correct? A. That is correct.

Q. And then in the 14–P machine the cap passes directly to the star wheel 10 and over a can in a pocket in that star wheel?

[342] A. Yes, sir.

Q. Whereas in the 24–P machine, after the cap has left the plate 13–a it passes first to downwardly inclined spaced rails which are curved, to start it in its motion toward the first turret; is that not correct? A. That is correct.

The MASTER.—You mean directed in its motion?

Mr. BLAKESLEE.—Started in its motion.

Q. When it leaves these curved rails it still has to travel a little further but that is the beginning of its motion over the curved rails, and in Exhibit "A," or the 14–P machine, there are no spaced stationary rails, either straight or curved, which support the cap as it moves on toward the point where it ultimately comes over the can; is that not correct?

Mr. TOWNSEND.—He has answered that half a dozen times.

Mr. BLAKESLEE.—I am summing this matter up.

A. I would say that this plate onto which the cap

is dropped supports the cap while being fed into the pocket.

Q. But that is a continuous plate and not spaced rails; is that not correct?

A. That is correct.

[344] (By Mr. BLAKESLEE.)

Q. And in Exhibit "A" and the 14–P machine the can cap moves in a straight path from the stack of caps to the pocket in the star wheel 10 over the plate 13–a, does it not? A. Yes, sir.

Q. Now, when the cap reaches the star wheel 10, or the pocket in the same, it passes under a curved ledge in the wall of the pocket and between that ledge and the can or the contents of the can, does it not? A. No, sir.

Q. The can top, then, rests in the open, so to speak, on the top of the can, or the commodity in the can, does it not?

A. If there is a product in the can it will rest on top of that; but if not the cap does not rest on the can.

[347] Q. If the can is in the pocket the flanged top of the can overlies that ledge, does it not?

A. Overlies, but not touching.

[348] Q. During that period of time what supports the can while it is pocketed in the star wheel 10? A. An under-platform or rail.

Q. And that is true as to the support of the can all the time that it is pocketed in the star wheel 10 and until its discharge from it, excepting at the two sealing stations; isn't that correct?

A. No, sir. After the can has received its first seam and is discharged from the double seam head Exhibit "P," from there on until it reaches the second operation station the can and cap with its first crimp rests on this ledge. There is no undersupport on the can at all.

Q. That is from the first station to the second station?

A. To the second; and from the second to the discharge there is an under-guide.

Q. Another rail?

A. Yes, sir; supporting the can from underneath.

Mr. TOWNSEND.—Make it clear, Mr. Blakeslee, please, just for the record, that we are talking about 14–P all the time.

Mr. BLAKESLEE.—Yes.

Q. Then, as I understand it, during the motion of the star wheel 10 and a can pocketed in it the can is at no time supported by a chuck; is that correct?

[349] A. That is correct. Well, I was misled a little bit there. Except at the seaming stations.

Q. When the can is at the seaming stations the star wheel 10 is not in motion, is it?

A. No, it is not.

Q. The star wheel 10 then constitutes, does it not, a medium or member for feeding the can and top from the point at which they are brought into co-axial relation, first to the first seaming station, then to the second seaming station, and then to the point of discharge?

A. Yes, sir.

Q. In that respect it is comparable, is it not, to what you have called the accelerating member of machine 24–P, or as exemplified in Exhibit "O"?

Mr. TOWNSEND.—That question, your Honor, is objected to as argumentative and unfair and an improper attempt to draw an inference.

Mr. BLAKESLEE.—I will add to it:

Q. That is, in the respect that it is a feeding or or advancing element for the cans rather than an element organized to include chucks such as the two turrets of the 24–P machine?

Mr. TOWNSEND.—I think the question is aggravated by the addenda.

Mr. BLAKESLEE.—Read the question to the witness.

(Last question read.)

[350] The MASTER.—I think that is proper cross-examination. He is asking what the functions between the different parts are.

Mr. TOWNSEND.—Do you understand what he is driving at, Mr. Augensen? What I understand is he wants to know whether the star wheel 10 is the same as this transferring device and arm in Exhibit "O."

Mr. BLAKESLEE.—I am framing these questions, Mr. Townsend, to bring this matter out as clearly as I can, and I would like to go on without interruption. If the witness does not understand he can always ask for clarification.

The MASTER.—Let the witness inquire if he doesn't understand.

Mr. TOWNSEND.—But I don't want him to frame the questions to trip the witness.

The MASTER.—I will advise the witness that if he doesn't understand, to say so at once so that we may be sure to have the questions answered with understanding.

A. They are both used as a feeding device.

Q. (By Mr. BLAKESLEE.) In other words, the star wheel 10 in its rotation or its step by step rotation to advance the pocketed cans does not carry with it in its motion any chuck device, does it?

Mr. TOWNSEND.—Your Honor, I object to this line of questioning. He is attempting to apply for purposes which this witness cannot of course appreciate, an astute idea of comparison [351] between a can feeding means and a can transferring means in the seaming operations.

Mr. BLAKESLEE.—I am comparing 24–P and 14–P as clearly as I know how.

Mr. TOWNSEND.—If you want to compare the part of star wheel 10 where it has to do with the movement of the can top, that is one thing, with Exhibit "O"; but you know very well you can't make any comparison between Exhibit "O" of 24–P and the star wheel of defendants' 14–P in the seaming operation.

Mr. BLAKESLEE.—Counsel is coaching the witness; and, furthermore, he seems to be very much afraid of this line of examination.

Mr. TOWNSEND.—I am not; but I don't want the witness tripped up by trick questions.

Mr. BLAKESLEE.—I am here to get admissions from this witness, if that is what you call tripping, and the questions are directed to structure that you have been over again and again.

The MASTER.—Let's have the question read. I don't want so much argument.

(Last question read.)

A. No, sir.

Q. (By Mr. BLAKESLEE.) And for that reason the star wheel 10 of the 14–P machine could not be transferred to the 24–P machine as one of the two turrets of that machine and operate in that machine in that capacity, could it?

[352] A. Not in the same structure, no.

Q. The chucks in the 14–P machine always remain in fixed positions of operation, do they not?

A. Yes, sir. I suppose you pertain to the upper chucks?

Q. I am referring to the chuck mechanisms that operate upon the can and top during the seaming operations.

A. Well, we call the lower chucks that raise the can chucks also, but they don't stay in the same position; they raise up and down.

Q. But they don't advance with the star wheel 10 at all? A. No, sir.

The MASTER.—That is one of the reasons, isn't it, why they have an intermittent motion?

A. Yes, sir.

Q. (By Mr. BLAKESLEE.) The intermittent

motion is to accommodate this stationary positioning of the chuck device, is it not?

A. Yes, sir.

Q. (By Mr. BLAKESLEE.) You referred in your testimony to a run of a 14–P machine at the rate of about 75 cans per minute. [353] Where did that take place?

A. That was in Ontario.

Q. How did you obtain the figure of 75 cans per minute?

A. I asked the operator and also the superintendent at that plant.

Mr. BLAKESLEE.—Then we move to strike the testimony out. They should come here and testify.

The MASTER.—The motion is granted.

[354] Q. (By Mr. BLAKESLEE.) To your knowledge is machine 24–P used for putting the bottoms on cans?

A. To my knowledge, no.

Q. You don't know of any such use of it?

A. Not commercially, but we have put the bottoms on ourselves.

Q. Have you ever seen any machine for can closing in operation, other than the Pacific machine and the Angelus 24–P, having a cap feed mechanism, including members for supporting and guiding the cap in a curved path to a constantly rotating [355] member for receiving both cans and caps, and subjecting them to a seaming or partial seaming operation? A. Yes, sir.

Q. What machine was that, and where?

A. The American Can four-spindle.

Q. Four-spindle?

A. Yes, sir; a rotary double seamer.

Q. But that machine in addition did not have two separate continuously operating turrets with a transfer rotating part between, did it?

A. No, sir.

Q. From your observation of the canning industry during the last two or three years, are you not prepared to say that the Pacific closing machine and the 24–P Angelus closing machine have brought a revolution about in the canning industry in the respect of sure closing action and greatly increased speed taken jointly into consideration?

A. I can say as to the 24–P machine; but not having operated or been working with the Pacific machine I couldn't state.

Q. You have seen the Pacific machine in operation in many plants, have you not?

A. In two plants.

Q. They were operating successfully in those plants, as far as you could observe?

A. As far as I could observe, yes. I was never in the warehouse.

[356] Q. But you feel quite sure that what I have mentioned as to the advantages conferred is true of the defendants' 24–P machine, do you not?

A. Yes, sir.

Q. Do you not consider it a marked advance over the Scott-Troyer and Max Ams machines? 406 Angelus Sanitary Can Machine Co. et al.

(Testimony of Roy Augensen.)

A. The 24–P?

Q. Yes. A. Yes, sir.

Redirect Examination.

(By Mr. TOWNSEND.)

Q. What was the name of the American Can Company's four-spindle machine last referred to in your cross-examination?

A. That was called the Johnson four-spindle.

Q. How long has that machine been on the market to your knowledge?

A. To my knowledge, ever since I was with the American Can Company.

Q. What was the operation of that machine? Can you tell us briefly?

A. From the time the can entered?

Q. Yes.

A. I can. The can is entered onto a disk which has a [357] series of slides which act as separators or timers to time cans on said disk and deliver the cans onto a timing chain carrying a series of lugs equally spaced. That chain carries the can forward, and in its travel acts against a trip lever tripping the cover feed mechanism. The covers in this machine are placed upside down, I would call it; that would be the paper or compound liner would be face up. The cover feed mechanism, after being tripped by the can acting on trip lever, drops, and there is a shoe that catches that cap and carries it on curved rails, the curved rails supporting the cap in its travels, and brings it, on those curved rails,

on top of the can and into the turret which carries four seaming stations. These seaming stations have the first and second seaming operation mechanism on them, The can is not transferred after it is onto the chuck that it is formerly delivered. The operation is performed in half the radius, or half the distance the can travels in the turret, and is released, and the second—

The MASTER.—I didn't understand that about the four seaming stations.

(Portion of previous answer read, as follows: "The_can is not transferred after it is onto the chuck that it is formerly delivered.")

Q. (By the MASTER.) Is not transferred after what?

A. I might make it a little clearly by saying that the can is not transferred to another seaming station or set of [358] chucks after it has been delivered from the can and cap feed. Both first and second operations are performed while the can is on one chuck, not being transferred.

Q. You would have to roll the first seam at the same speed you did the second, then, would you not?

A. Yes. The can was spinning at all times, the can spinning on both first and second operations.

Q. Is that an intermittent movement or-

A. Rotary. Continuous. No intermittent movement. Continuous motion.

Q. As soon as it got on the chuck it began to whirl and kept on whirling until both seamings were done?

A. Yes, sir, and discharged.

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(Testimony of Roy Augensen.)

Q. Yes. In the meantime was that turnet turning?

A. Yes, sir, carrying four spindles or seaming stations.

Q. (By Mr. TOWNSEND.) Do I understand, then, that during the first seaming operation, or the first and second operations, the can was advanced through the machine continuously? A. Yes, sir.

Q. (By Mr. BLAKESLEE. This was a singleturret machine, was it not? [359] A. Yes, sir.

Q. (By the MASTER.) Your 24–P allows a faster rotation on the second seaming station, does it not?

A. No, sir; it is slower on the second.

Q. There are six revolutions on the first and five of the second? A. Yes, sir,

Q. Does the roller go any faster around the top of the can?

A. No, sir; the speed of the roller is governed by the friction of the can.

[362] Q. (By Mr. TOWNSEND.) Are there any other machines that have come under your knowledge and notice in which the can is continuously moved in a forward direction while the seaming operations are performed? A. Yes, sir.

Q. Just name them.

A. The Continental Can Company has a machine that is rotary and continuous in seaming the can.

Q. And will you describe the operation of that machine?

A. I wouldn't try to describe the exact feed of it,

as I am afraid I will not get everything, or bring something up wrong; but the seaming is performed in the same way as on the American Can Company Johnson four-spindle.

[363a] Mr. BLAKESLEE.—It must be prior to August 10, 1914.

Mr. TOWNSEND.—Well, we cannot prove it all by this witness.

Q. Now, how long have you known of that Continental machine?

A. Since 1915 when I went with the American Can Company.

Q. Such a machine was on the market at that time? A. Yes, sir.

Q. Will you describe the operation of that machine as you know it after the can with its cap is received in the seaming mechanism?

Mr. BLAKESLEE.—We object on the ground that it can't be material and can't be relevant, because the first knowledge of this witness is subsequent to the date of application of the patent Exhibit No. 3, and it can't serve any purpose in this suit.

The MASTER.—There is no foundation yet.

Mr. TOWNSEND.-I can't get it all in at once.

The MASTER.—There is no foundation unless you expect to prove hereafter that those machines were constructed or in operation or design prior to August, 1914.

Mr. BLAKESLEE.—But that wouldn't do any good, your Honor, because this witness can only

testify as to machines within his knowledge, and that is subsequent to the date which is material here. That being so, his knowledge cannot be material in this case.

[363b] Mr. TOWNSEND.—I don't want to withdraw this witness now and bring in some other witness just to bring it down to this date.

The MASTER.—I will sustain the objection, but he may answer for the purpose of the record.

Mr. TOWNSEND.—Will you read the question? (Last question read.)

A. In this machine, after the can is clamped between the upper and lower chuck it also revolves and there is a similar construction as in the American-Johnson four-spindle machine.

The MASTER.—You mean the can spins?

A. The can spins; yes, sir.

Q. (By Mr. TOWNSEND.) And the can at the same time would progress?

A. Progress through the machine, this also being a four-spindle single turret machine, the same not identically—it is similar in its construction of the means of bringing the first and second rollers into the can and performing the seam.

Q. (By the MASTER.) Both rolling operations are done on the same station? A. Yes, sir.

Mr. TOWNSEND.—"Station," your Honor, is a little bit confusing. It is done on the same spindles.

The MASTER.—That is what I understood.

Mr. TOWNSEND.—A station may be at two different points.

[364] The MA'STER.—Well, on the same spindle, that is what you meant? A. Yes, sir.

The MASTER.—May I ask if there is any advantage in performing the operation in two different spindles, or two different stations, over what there is in performing both the first and second operations on one? Is that objectionable?

Mr. BLAKESLEE.—That is one of the main contentions on our part.

Mr. TOWNSEND.—For the purpose of the patent here we don't think it cuts any figure, but there are two well recognized modes in the art; doing the double seaming on one spindle continuously, or doing it on two stations by an intermittent machine, or doing it at two stations by a continuous machine. Those are all well recognized, distinct lines of endeavor, and it seems to be largely a matter of choice with the different machine manufacturers as to which type they adopt.

The MASTER.—Well, I will withdraw the question.

Mr. BLAKESLEE.—We, of course, say that it is mere argument and it enters into one of our main contentions, the making of the first seam on a moving carrier or turret, the first seaming operation, and then completing that seaming operation on a second moving carrier or turret, each turret being equipped by parts moving with it; that to do those performances in combination with transfer means

between gives the acme of perfect mechanical conditions to produce a speed, and that [365] is one of the gists of our invention.

The MASTER.—My only inquiry was as to a portion of that, that is, whether the 14–P was superior to the American Can machine in its seaming operations, by reason of the fact that you use two stations in 14–P and the same spindle in the American Can machine.

Mr. TOWNSEND.—We will inquire into that later.

The MASTER.—All right; let's proceed.

Q. (By Mr. TOWNSEND.) We interruted you in your description of this Continental Can machine. Just give it to us again, or had you covered it all?

A. Yes, sir.

Recross-examination.

(By Mr. BLAKESLEE.)

Q. With respect to this use you told us about before where there were downwardly inclined curved rails, I think you mentioned, in conjunction with a single turret or four-spindle machine, I think you said, when did you know of that first?

A. Do you mean the machine I explained? The American Can?

Q. The first machine of those two that you said you knew of.

A. Why, they had been in use I understood, but the first I knew of them was in 1915.

Mr. BLAKESLEE.—Then we move to strike out the testimony [366] of the witness regarding that machine, as irrelevant and immaterial, in view of the date of the patent, Exhibit 3. His knowledge is of a later date.

The MASTER.—Sustained.

Mr. TOWNSEND.—Well, just a minute, your Honor. This so-called can feed device wasn't applied for until 1916.

The MASTER.—Then there must be a confusion of patents.

Mr. TOWNSEND.—And furthermore, the experience of this witness in prior arts will be connected up in later testimony, that is, we haven't put this witness on for prior art strictly, but it is prior art.

The MASTER.—Do you withdraw your motion, Mr. Blakeslee?

Mr. BLAKESLEE.—I will ask that it stand, because the matter concerned both of those patents, the coincident feed covered in Claim 1 of Exhibit 3 and the two turrets covered in that patent, and the matter was pertinent to the combination of the feed and the turrets, and I think it is entirely immaterial for that reason.

Mr. TOWNSEND.—Your Honor has already ruled upon it.

The MASTER.—Well, I could withdraw the ruling if it was too expeditious.

Mr. TOWNSEND.—This testimony is directly and properly redirect in view of the testimony counsel himself brought out as to the experience of this witness. He was asked if he ever saw one of

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those things, and I had him describe it; but counsel on the other side didn't want to know anything about [367] the description.

The MASTER.—All right, let the ruling stand for the present.

Mr. BLAKESLEE.—We might suggest that the motion be sustained as far as it could relate to the patent of Exhibit No. 3, which is of the date of August 10, 1914, on application; that the ruling should stand as to that.

The MASTER.—Very well; I will let it stand as to that.

Mr. BLAKESLEE.—And as to the other the ruling will be reserved for the present?

The MASTER.—Yes.

[368] Mr. BLAKESLEE.—Before you proceed, I would like to make this suggestion: The machine which is now in evidence as the defendants' 24-P machine I understand was the same machine which the Master inspected with counsel and experts first but that it was reassembled or fixed up to put it in better condition. We hardly think that the test run which was made, or the trials and observations which were made of the plaintiffs' machine on December 22, were entirely fair or comparable with the run made vesterday with the 24-P machine because that was a machine simply quickly selected for the purpose, and we should like to have a further run of a Pacific machine. If the Master wishes that same one to remain in status quo ante it can so remain and we will make a run with it

(Testimony of Ray O. Wilson.)

or with another at a cannery or another in our shop; but we should like to have another run at such time as suits the convenience [369] of all concerned.

The MASTER.—I don't think it will be necessary to make that run at the present time. I feel, though, that it would be of advantage to have a run made with some products in. Probably we could have a view of one at a cannery.

TESTIMONY OF RAY O. WILSON, FOR PLAINTIFFS (RECALLED).

[371] RAY O. WILSON, recalled on behalf of the plaintiffs.

Cross-examination (Resumed).

[375] Q. You referred, Mr. Wilson, to dates at various times when certain things took place, for instance in regard to having made 12 machines, or some such number you thought, some time about 1915. How do you fix that date, and did you refer to any records before you testified or were you just testifying from memory?

A. Yes, sir, from memory.

Q. Whenever those so-called 12 machines were made who made them? What concern made them?

A. I think at that time we called ourselves Sumner & Wilson, or it might have overlapped into the Stetson Machine Company at that time. I am not sure about that.

Q. What was the name? You say the Stetson Company?

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(Testimony of Ray O. Wilson.)

A. The Stetson Machine Company was the second name, and Sumner-Wilson Company was the first name we had.

Q. How long did the name of Sumner and Wilson continue before it became Stetson Company?

A. I don't remember.

Q. A short time or a long time?

A. Not very long.

Q. A year, or five years?

A. It wasn't five years; it might have been a year.

[376] Q. Do you remember when the Stetson Machine Company was organized into a copartnership? A. No, I do not.

Q. And you stated you didn't remember whether the articles of incorporation were in writing or not? A. I don't recall that, either.

Q. If I refer you to the records of Los Angeles County to the effect that the Stetson Machine Company was registered in the County Clerk's office on behalf of F. F. Stetson, doing business under the firm name of Stetson Machine Company, filed May 24, 1918, place of business 324 San Fernando Boulevard, Los Angeles, California, would you say that is the concern you refer to? A. Yes.

Q. So then, incidents that you have made mention of in referring to the Stetson Machine Works would be subsequent to that date, wouldn't they?

A. As I have explained a while ago, the Sumner-Wilson Company [377] and the Stetson Machine Company were both copartnerships, and so far as changing the actual condition of things, it did not (Testimony of Ray O. Wilson.)

change a particle. As far as remembering dates or building so many machines, or the dates of changing the names, I may be away off on it.

Q. The Wilson-Sumner Company, or whatever you call it, merged into the Stetson Machine Company; is that right? A. Yes.

Q. And then the Stetson Machine Company merged into the Pacific Closing Machine Company? A. That is right.

Q. And it appears from the records of this County that articles of incorporation of the Pacific Closing Machine Company were filed with the County Clerk of Los Angeles County on June 9, 1921, the incorporators being specified as the following: Sam B. Irvin, I. B. Stetson, G. L. Chrisope, J. E. Mc-Comas, and N. Johnston. Do you recall those names? A. Yes.

Mr. BLAKESLEE.—We object to the question as testimony on the part of counsel. I do not think counsel should state what the records of the county show. If he wishes to prove the dates shown by the records, certified copies can be filed.

Mr. TOWNSEND.—I am testing his recollection.

Mr. BLAKESLEE.—But that is not the way to prove it. We don't know whether the records show that or not, on counsel's statement.

[378] Mr. TOWNSEND.—You have the evidence in your possession to disprove it.

The MASTER.—The evidence will stand, subject to correction. If you can show that Mr. Townsend is in error you will have that opportunity. 418 Angelus Sanitary Can Machine Co. et al.

(Testimony of Ray O. Wilson.)

Mr. BLAKESLEE.—The witness will bring with him on Wednesday evidence of all these different companies, when they started and ended.

The WITNESS.—I don't know whether we can get it or not.

Mr. BLAKESLEE.—So far as he can.

Q. (By Mr. TOWNSEND.) Who is Mr. Sam B. Irvin?

A. He is Secretary of the Los Angeles Can Company at present.

Q. Is he still living? A. Yes.

Q. And who is I. B. Stetson?

A. Wife of Mr. F. F. Stetson.

Q. Who is J. E. McComas?

A. Attorney in the Loughlin Building.

Q. And who is N. Johnston?

A. That is the stenographer in the Loughlin Building.

Q. Now, when you referred to certain speeds of operation of your Pacific machine in different plants —where you ran 90 in one place and 100 in another, and so forth—when did you make those observations, and particularly when did you make the observation at Hemet?

[379] A. There comes up those dates again. I don't recall all the dates. I have been up there fifty or sixty times probably.

Q. Have you a record with you showing what the run was at the time you say you observed it?

A. No, I have not.

Q. Did you make a written record at the time?
A. No.

Q. You are relying solely on your memory as to what took place in the way of actual runs?

A. Yes. I can prove it, though.

Q. Now would the same answers apply to your observations and testimony regarding the Golden State Cannery wherein you have stated what the run was? A. I think so. Yes.

Q. Well, you are relying on your memory?

A. Altogether.

Q. And you can't tell when you observed those tests? A. Last season at the Golden State.

Q. Where? A. In Ontario.

Q. And did you make any written memoranda?A. No.

Q. You are relying on your memory?

A. Altogether.

Q. And I suppose you are relying the same way with respect to all the other instances you have referred to? [380] A. Yes.

Q. Now, you said that the Pacific machines were in the Los Angeles Can Company's plant, with two exceptions. A. Yes.

Q. What do you mean by that?

A. They have one 19–P Angelus machine that they use off and on. They were running two body makers at times. When they started up the extra body maker they would hook this other 19–P in the line, off and on. The other one is a 14–P installed in there quite recently to make the tall quart olive cans. Those were the two exceptions.

Q. And you referred to a fish cannery down at Wilmington, where you have had some of your machines, have you? A. Yes.

Q. What is the name of that cannery?

A. The Coast Fishing Company.

Q. Have they any other machines in that plant used for canning fish besides your Pacific machine?

A. Yes, they have the Max Ams, a square machine, and the Angelus 14–P.

Q. How recently did they get some of those Angelus machines, do you know?

A. It must be two or three years, I should say.

Q. When did you put your Pacific machines in there? A. The first of last season.

Q. As a matter of fact, at the time they put your Pacific [381] machine in they put in six or eight Angelus machines at the same time, sold to them by either yourselves or the Los Angeles Can

Q. Am I correct in any part of my question? If Company? A. No.

I have embraced too much in it, put me right.

A. They have the plant completely equipped with Angelus on the round cans.

Q. (By Mr. BLAKESLEE.) What number Angelus?

A. Number 14–P. They installed one of our Pacifics at the beginning of the season, and they made a deal with the Los Angeles Can Company, I understand, where they bought the rest of the Angelus that they had in the plant for \$200 apiece.

Q. That was done quite recently, was it?

A. Quite recently.

Q. And they are using those Angelus 14–P's for canning fish alongside of your Pacific?

A. They use it in the one-pound line, but the half-pound line I understand they use the Pacific altogether.

Q. You referred to a San Diego plant. I want to get the name of that plant.

A. The Lower California Fisheries Company.

Q. What machines have they there?

A. They have the Angelus 14–P and the Pacific.

Q. And they are using both the Angelus and Pacific in [382] their plant?

A. They are using one Angelus and one Pacific, and there is one idle Angelus 14–P. There is the place we replaced.

Q. Who is Mr. Harrington that you referred to as having been the medium of introducing you to Mr. Guenther some years ago?

A. He is the die maker for the Los Angeles Can Company.

Q. Is he in the employ of the Los Angeles Can Company? A. Yes.

Q. Who were you working for when you first met Mr. Guenther?

A. The Smith-Booth-Usher Company.

Q. What is their line of work?

[383] A. Machinery dealers.

Q. Do they manufacture machinery? A. No.

Q. They don't do any manufacturing work at all?

A. Oh, some small stuff, like pulleys.

(Testimony of Ray O. Wilson.)

Q. And repair work possibly? A. Yes, sir.

Q. Do they have a machine-shop? A. Yes.

Q. What was the occasion of your meeting Mr. Guenther at that time?

A. I went out to call on Mr. Harrington. He was an old friend of ours from back in our old home.

Q. And what was Mr. Guenther's work; what was he doing at that time?

A. Just getting ready to build the 14–P.

Q. And where was that?

A. In his shop back of the Los Angeles Can Company.

Q. And you went into his employ? A. Yes.

- Q. And he paid for your services? A. Yes.
- Q. How long did you continue in his employ?

A. A little under three years, I think.

Q. And when did you say you left?

A. February 10, 1914.

[384] Q. During that time was the Angelus 14–P constructed?

A. Yes, there was several of them.

[385] Q. I suppose by that experience you got to know the 14–P pretty well, did you? A. Yes.

Q. Now, it was during your employment with Mr. Guenther that you got up your so-called canencircling head, was it not?

Mr. BLAKESLEE.—We object to that, your Honor. The question of the date of invention of any of these matters has not been gone into on direct, and it is proper to reserve it until rebuttal.

vs. Ray O. Wilson et al. 423.

We are entitled to know by defendants' proof if they attack our date of invention, and in what manner, and they are not entitled to know in anticipation what our date of invention was so that they can fit their proofs to it. The burden is on the defendant at first to attack the date of our patent application, then in rebuttal we may carry back [386] our date, under the well-established rule of Walker on Patents, Sec. 70, and not until that time are they entitled to a disclosure of our invention. They have not asked it in the interrogatories or by particulars, and are not entitled to know it.

[389] The MASTER.—I think I will rule on it in this way: Until I have further light I will not allow the question. If I can see any materiality in it in the future I may allow it. This is not to be a precedent, I mean. If there is anything to be gained by it I will let in later.

Mr. TOWNSEND.—You mean you will overrule the objection, but will allow the answer to go in?

The MASTER.-No; I sustain the objection.

[395] The MASTER.—Well, I will not allow this question to be answered at this time.

[397] The MASTER.—Well, I will do either one of two things—I will certify the question to the Court or the record will stand as it is.

Mr. TOWNSEND.—I will take an exception and we will have to prove that fact by another witness.

Q. [398] (By Mr. TOWNSEND.) Now, you said in your direct examination that you left the

(Testimony of Ray O. Wilson.) employ of Mr. Guenther February 10, 1914. Who did you go to work for?

A. I went to work on this new machine.

Q. For whom?

A. Three of us—Mr. Stetson, Mr. Sumner, and myself.

Q. Where did you do that work?

A. At Smith-Booth-Usher's.

Q. Who was working down there on it?

A. Myself.

Q. What was Mr. Sumner's employment during that period and prior thereto?

A. With the Los Angeles Can Company.

Q. During the time you were working for Mr. Guenther was Mr. Sumner, your copatentee, employed by the L. A. Can Company? A. Yes.

Q. In what capacity?

[399] A. In charge of the miscellaneous can department.

Q. Was his location near yours?

A. Yes; next room.

Q. Was he in and out? A. Quite often.

Q. Did he ever observe these 14–P machines?

A. Yes.

Q. Now, after you quit there and went down to Smith-Booth-Usher's place, did Sumner continue on with the Can Company? A. Yes.

Q. In what capacity? A. The same capacity.

Q. (By the MASTER.) Do I understand that Mr. Guenther was an employee of the Los Angeles Can Company?

[400] A. Yes. That is the way I understood it. I am not sure. Up until a month or so before I quit.

Q. I say, there was a machine-shop in the L. A. Can Company in February, 1914, was there not?

A. Yes.

Q. It was equipped suitably for making canning machinery, was it? A. Yes.

Q. And Mr. Guenther was right adjacent there to give you any help or suggestion if you needed it? A. Yes.

Mr. BLAKESLEE.-I object-

The MASTER.—He has answered.

Mr. BLAKESLEE.—I move to strike it out as immaterial.

The MASTER.—Overruled.

[401] (By Mr. TOWNSEND.) Now can you tell me why, with all the facilities there in the Los Angeles Can Company's shop to do this sort of work, you went off and did this work at Smith-Booth-Usher's?

A. I was not connected with the Los Angeles Can Company, and owing to my friendship made down there during my employment there I went down there, the first natural place I should go.

[402] A. I say, because of my friendship made down at the Smith-Booth-Usher Company when I was employed down there was the main reason I went to their shop.

Q. Now did you have to pay shop rent while you were there? A. Yes, sir.

Q. How long did you work there continuously?

A. Approximately four months.

Q. What was accomplished in those four months?

A. Built the first machine.

Q. In four months, now?

A. Yes. A fast worker.

The MASTER.—Which machine is that—the one in patent Exhibit 3?

The WITNESS.—Yes.

Mr. TOWNSEND.—Well, we are not trying to connect any so-called machine with any patent here. They made *a* machine. They may claim it was built according to that patent, but we don't know that. We haven't the machine here.

Q. Now, who saw that machine while it was undergoing construction at Smith-Booth-Usher's?

A. Any number of people saw it.

Q. Well, just mention some of them.

[403] A. The employees around the Smith-Booth-Usher place.

Q. Give us the names of the individuals besides yourself and Mr. Stetson and Mr. Sumner who saw that machine.

A. Mr. Usher, Mr. Van Wert, and Mr. Cushman-

Q. Did Mr. Guenther see it there?

A. Not to my knowledge.

Q. Did you tell him what you were doing?

A. Yes.

Q. What did you tell him you were doing?

A. I told him that when I quit.

Q. What did you tell him?

A. I told him I was going to build that new machine.

Q. When you say "that new machine," what do you mean? A. The machine we had designed.

[404] A. That is, it was my understanding that the Can Company owned the shop and that Mr. Guenther was in the employ of the Los Angeles Can Company. That was the understanding I had of it at that time.

Q. And do you remember how you were paid? Were you paid by Mr. Guenther or by the Angelus Can Company or by the Los Angeles Can Company?

A. By the Los Angeles Can Company.

Q. You think you were paid by the Los Angeles Can Company? A. Yes.

Q. During all the time you were employed in Mr. Guenther's shop?

A. No; up to a month or so before I quit. I think that is correct, or somewhere near correct.

[406] 514 Post Office Building,

Los Angeles, California, Wednesday, April 4, 1923, 10 A. M.

(Appearances as previously noted.)

The MASTER.—You may proceed in the case of Wilson et al. vs. Angelus Sanitary Can Company et al. At the last hearing we adjourned to January 10, but on that day, due to Mr. Blakeslee's illness, the matter, with the consent of counsel for the defendants, was continued subject to the call of the Master. Various dates were fixed, and for

various reasons continuances were taken, Mr. Townsend also having his turn on the sick list, and with the consent of both counsel the matter is now ready for proceeding this morning. Mr. Wilson was on cross-examination. Do you desire to proceed further with him?

Mr. TOWNSEND.—Yes.

RAY O. WILSON recalled.

Cross-examination (Resumed).

(By Mr. TOWNSEND.)

Q. Mr. Wilson, have you the contract with the L. A. Can Company that has been referred to in the record, and which you and your counsel promised to produce?

A. No, we have no contract. There is no contract so far [407] as I know.

A. We have no contract, and I think we offered the last time to produce some written evidence that there was a contract—that there was an agreement. Now, what form that contract would take I don't know. It would have to be done through Mr. Stetson and the L. A. Can Company. But we have an agreement and we pay the L. A. Can Company royalties and can show a statement to that effect.

Q. You are a party to that contract?

A. The Pacific Closing Machine Company pays the L. A. Can Company a royalty for all machines sold in California.

Q. Are you a party to the agreement, whatever

it is, between yourselves as owners of the patents here in suit and the L. A. Can Company?

A. Yes.

Q. And your signature is to that agreement, is it? A. No.

[409] Q. Well, what did you mean when you and your counsel both stated that the contract was in writing.

A. I thought we had a contract. I thought it was between Mr. Stetson and the Los Angeles Can Company.

Mr. BLAKESLEE.—I don't know as I stated that. I said if there was such a contract we certainly would be willing to produce it. I haven't got it, I will repeat again, and as far as the plaintiffs are concerned the witness is not only advised that he may produce it but the suggestion is made that he produce it if he possibly can, because there is nothing in it to conceal in this matter. I think I have seen a certain paper which Mr. Wilson showed me at the time of the last session that bore on this matter, but I haven't that here. If Mr. Wilson knows where it is, he may state.

The WITNESS.—There was a contract alloting the California rights to Mr. Stetson, and in turn he was to make the arrangements with the Los Angeles Can Company.

Q. (By Mr. TOWNSEND.) Well, I want all papers showing any rights and all the rights of the Los Angeles Can Company in, to, or under these patents. Now is that clear?

A. That is very clear.

[410] Q. Now can you produce those papers? A. We cannot.

Q. Will you produce it before we adjourn to-day?

A. No. I thought the contract was in writing, and that I would get it if that was the case, but that would have to be done between Mr. Stetson and the L. A. Can Company. I personally have nothing to do with that.

Mr. BLAKESLEE.—I will say that I am not, and I am sure the witness is not, attempting to dodge this issue; that Mr. Wilson, the witness, showed me a certain contract during the last session that bore on this matter, and I think it is the one counsel refers to. I don't know where it is now. If Mr. Wilson does, he may produce it. I haven't it.

The WITNESS.—It is in evidence.

Mr. BLAKESLEE.—I did see that certain contract, and I suppose that is the one you refer to, and I am quite willing to have it produced.

The WITNESS.—That is the contract giving the rights to California to Mr. Stetson.

Q. (By Mr. TOWNSEND.) Well, let us see that contract.

A. It is in evidence, or it was the last day. I haven't it now.

Q. No, it is not in evidence, I think.

A. Well, it was around the table here, I know.

Q. And where is it now? A. I don't know.

[411] Mr. BLAKESLEE.—It was here. I know there was such a contract.

Q. (By Mr. TOWNSEND.) Now, further, on page 373: "Mr. Blakeslee.-We will offer to produce the evidence of the arrangement, and Mr. Wilson has here and will produce the written agreement between the parties that reflects the interest of the L. A. Can Company in the patent which has been withdrawn from suit, and that would be the best evidence, and we are willing to produce it." And again on page 374: Mr. Blakeslee:-we had it here yesterday anticipating you would want it on cross-examination. I saw it, myself." Now, inasmuch as we were not aware of its presence in court, although having asked for it, and it not having been proffered, we did not ask for the possession of it for that reason. Now, your testimony is very much confused here as to the existence of this contract at all and whether it is in writing or not. What is your best answer now as to that matter and in regard to its production in response to my request?

A. I didn't understand the last part of that, about production.

Q. Well, you want your testimony corrected about this agreement to the effect that the L. A. Can Company's agreement is not in writing? It is in writing, is it not?

A. Well, evidently not. Anyway, regardless of that fact they are exercising their rights and we are paying royalties on it.

[412] Q. Well, is all your testimony to be taken

(Testimony of Ray O. Wilson.)

in this loose fashion, that a thing is or is not in existence?

A. When the conditions are loose I guess the testimony will have to be loose. That seems to be it.

Mr. BLAKESLEE.—I have stated, and I state again, that a certain paper was handed to me which bore on the relation of the L. A. Can Company to the patent or patents in suit, and that I scanned it in court here during one of the recent sessions and saw that it contained a patent number agreeing with that of one of the patents in suit. It was here, and it is the agreement to which I referred on the record. That [413] was the last I saw of it. My recollection is that I handed it back to Mr. Wilson, with the understanding that it would be produced at the next ensuing session, which is the present one. I haven't it now and don't know where it is.

Mr. TOWNSEND.—I would like to have had it now to possibly shape my cross-examination on that point.

Q. Now, in regard to the agreement you have with the Pacific Closing Machine Company, to which you have referred, [414] can you produce the writings or papers that embody the understanding between the patentees and the Pacific Closing Machine Company? A. Yes.

Q. Will you do so at two o'clock this afternoon? A. Yes.

The MASTER.—That will mean your minutebook, will it not?

The WITNESS.—That is all.

Mr. BLAKESLEE.—Make a note, Mr. Wilson, in your book, will you, to look up both of those?

The WITNESS.—Yes.

Q. (By Mr. TOWNSEND.) Just before we closed our last session as appears on page 403 of the record, referring to your relations with Mr. Guenther at the time you were employed by him, you answered: "I told him I was going to build that new machine." What did you tell Mr. Guenther?

A. I think that covers it, that we were going to build the machine. We had designs made. He know of it long before I quit, that we were working on a machine; I am sure of that.

Q. Knew that who was working on the machine?

A. Sumner and myself.

Q. Now just state what you told him.

A. I can't I don't recollect it. But I am sure that I [415] made it clear that that is what I was going to do.

Q. Did you tell him what kind of a machine it was going to be? A. I don't recall.

Q. In your previous answer you indicated that you made it clear to him. Now, what sort of statement did you make to him?

A. I remember the talk on the morning that I told him I was going to quit. We had quite a session, but what we said at that time I don't know.

I don't recall it all. But I know I didn't withhold the fact that—

Q. What did he know about this so-called new machine?

Mr. BLAKESLEE.—We object to that as calling for hearsay, what the other man knew.

Q. (By Mr. TOWNSEND.) You just stated that he knew about it. Now, what did he know about it?

Mr. BLAKESLEE.—The witness is not competent to testify to that.

Q. (By Mr. TOWNSEND.) From what source or by what means had Mr. Guenther any knowledge of your so-called new machine?

A. Why, it was common gossip around the shop that we were working on a new machine.

Q. It was merely common gossip? A. Yes.

Q. You don't know whether Mr. Guenther was a party to that gossip or not, do you?

A. Only I recall the fact that I stated to Mr. Guenther [416] on the day I told him I was quitting that I was going to start on that new machine that I had designed. He knew that.

Q. What do you mean by "designed"? Had you built any part of the machine at that time?

A. No, we just had the drawings completed.

Q. Have you those drawings now?

A. Some of them. The majority of them I guess have been destroyed.

Q. What did those drawings that you had at that time before you left Mr. Guenther show?

A. A complete machine. Practically a complete machine.

Q. Do you mean that you showed those drawings to Mr. Guenther? A. No.

Q. As far as you know, Mr. Guenther never saw them, did he? A. No.

Q. Well, how did he know anything about this so-called new machine that you were going to build?

A. Because I told him, and I knew of several of the boys around the shop that knew about it, so he had ample opportunity of finding it out if I hadn't told him.

Q. What other boys around the shop knew about these drawings that you made at that time?

A. The foreman in charge of the shop.

Q. Who was that? A. Charley Brevear.

[417] Q. The foreman in whose shop?

A. Mr. Guenther's shop.

Q. And who else? A. Mr. Jim Miller.

Q. Who is Jim Miller?

A. He was one of Guenther's mechanics. And Clyde Bell was another mechanic for Mr. Guenther. Those are three that I know of that knew of it.

Q. Had you shown them the complete drawings?

A. No. I had no occasion to.

Q. Now, when you speak of this new machine, as a matter of fact was it not this so-called canencircling means that you built while you were there with Guenther that you have in mind?

A. No. That was built several months before that. That was built over a year before that.

(Testimony of Ray O. Wilson.)

Q. You think it was built a year before?

A. I am pretty sure.

Q. That is the can-encircling means—you know what I refer to. That is the feed that is shown in your patent that was withdrawn from suit.

A. Yes.

Q. You built that while you were there with Mr. Guenther? A. Yes.

Q. And while you were in his employ?

A. I think I previously stated that I was in the employ [418] of the L. A. Can Company at that time, because I remember I went to Mr. Spencer, the manager of the L. A. Can Company, and asked his permission to use one of the tools in the shop to make the encircling means.

Q. Mr. Guenther was in charge of that shop then, was he? A. Yes.

Q. And you built it on that machine, did you?

A. Yes.

Q. And you built it with the tools and used the material, I suppose, you found there at the shop to build it from? A. Yes.

Q. How long before you left did you build that can-encircling means of this withdrawn patent?

Mr. BLAKESLEE.—Now, we object to that on the same grounds of objection previously urged, that there is no contest here of priority of invention, and that the antecedents of this invention are not properly to be divulged here and are not a matter in issue at all. There is no prior act of

invention set up by the defendants in their pleadings—no contest of priority in this case.

Mr. TOWNSEND.—The witness said about a year. I want to fix it more definitely, and the canencircling means is one of the chief elements of—

Mr. BLAKESLEE.—The time when it was built is not material to the issues in this case on the *prima facie* case or on cross-examination of any witness in such case.

[419] Mr. TOWNSEND.—Well, your Honor knows it is. We think that is very material, when a man builds an invention. Not only on the testing of his memory, but on other points. It is a very proper thing to find out the history, when he first disclosed part of it. We want the complete history.

Mr. BLAKESLEE.—Our courts have held that any act pertaining to invention is not material unless there is a controversy as to priority, and that no such date need be produced by a witness in the *prima facie* case, and I think that ruling should be made here, because it is not material to the issue at all. The patent has been offered, and the date of the patent speaks for itself.

The MASTER.—He has already testified on it, and I think it would be proper to fix the date more certainly if he can.

Mr. BLAKESLEE.—I believe we have reserved all exceptions, have we not?

The MASTER.-Yes.

A. My best recollection is that it was on some

holiday in 1912 that I made the ring. Whether it was on Sunday or a holiday I don't recollect. That was in 1912.

Q. (By Mr. TOWNSEND.) Made what ring?

A. The encircling means.

Q. There were several holidays in 1912.

A. That is true. But that is to the best of my recollection. That is as near as I can get to it. It was some holiday or Sunday along in the spring or summer of 1912.

[420] Q. Have you any memorandum or record by which you can fix that date?

A. No, I have not.

Q. How long was that before you left Guenther's employ?

A. A little less than two years, I should say. A year and a half. I left Mr. Guenther on February 10, 1914.

Q. Well, after you built this can-encircling means there, what did you do with it, if anything?

A. I just built one —I built two. The first one was not successful. I had to change the design a little bit on the second one, and then we tried it out for a season's run in the Los Angeles Can Company's plant on one of Mr. Guenther's machines.

Q. On 14–P? A. Yes.

Q. How long after you built the first one did you build the second one?

A. Right away. The first one wouldn't work.

Q. Did you try it out the same season or the next season? A. The same season.

Q. Anyone assist you in building or designing this can-encircling means?

[421] Q. You say you only made two of those while you were there with Mr. Guenther?

A. I think that was all.

Q. How long did the second one continue in use?

A. Something about four million cans, I think, was run on the first successful one that we installed. Four million cans.

Q. What became of it? A. I don't know.

Q. Are you not making a rather wild guess on the success of that second one, about its doing four million cans?

A. That is the figure I have got in my mind, that they made four million cans on it.

Q. And when was that used?

A. I think it was in the 1912 season; or it might have been 1913 that the big run was made on it.

Q. (By the MASTER.) You used it for putting the can bottom on, did you?

[422] A. That is it.

Q. (By Mr. TOWNSEND.) In your opinion the use of that ring was entirely successful?

A. It evidently was. They used it and liked it very much. It was not properly adapted to the machine; that is, that style of machine was not really a right design for that encircling means; it was not strong enough.

Q. Did they take off any other seaming means when they put this on? A. Yes.

Q. What did they take off?

(Testimony of Ray O. Wilson.)

A. We took off the two rollers and levers and balanced the head up and put one lever back on to force the ring over.

Q. What kind of seaming means was on there already, that you took off in order to put yours on?

A. It is the same type that is on the 14–P. Two rollers on each side and a housing.

Q. Similar to this Defendants' Exhibit "P" (showing)?

A. The same as that there, exactly.

Q. Were any other changes necessary in substituting your can-encircling means on that machine in place of the roller seaming means like Exhibit "P"?

A. I think I have stated all the changes necessary.

Q. Well, maybe I didn't quite understand you. Just state them again, if you will.

A. That we took out both levers, balanced the head up, and [423] put another style of lever there to throw the encircling means over.

Q. When you say you took off both levers from the type Exhibit "P," what were those levers?

A. These two here (indicating on Exhibit "P").

Q. Referring to the lever that carries the seaming rollers? A. Yes.

Q. Did you make any other change in the machine in adapting it to the use of your can-encircling means?

A. We had to cut this encircling means we have

got here, I think (Exhibit "P"), to make the die clear so that we could throw it over.

Q. We have referred to the centering cup of Exhibit "P"?

A. Yes. We surely would have to do that, and, as I recall, that is what we did.

Q. Well, do I understand from what you said that you took a can-seaming head here like Exhibit "P" and adapted it, by cutting and replacement, to your style of can-encircling means? A. Yes.

Q. Now, the old seaming roller device that was on there, like Exhibit "P," operated in what manner? Did the can stand still and the seaming rollers like Exhibit "P" revolve, or did the roller stand still and the can revolve?

A. The can stood still.

Q. Now, what happened when you substituted for the original seaming means like Exhibit "P" your can-encircling means? Did [424] the can still stand still? A. Yes.

Q. Then I understand that in the first canencircling means that you attached to this L. A. Can Company 14–P machine in substitution of the former Guenther seaming head like Exhibit "P," it still held the can stationary and the ring was pressed in against the seam by the roller running around the ring. A. That is it.

Q. And that is the construction shown on this patent to Sumner and Wilson No. 1,124,553, of January 12, 1915 (showing patent)? A. Yes.

(Testimony of Ray O. Wilson.)

Q. And the roller you speak of is shown in dotted lines and marked "10" on Fig. 1 of this patent?

A. That is right.

Q. And the seaming ring, the same figure, is shown in section marked "23"? A. Yes.

Q. That seaming ring 23 is given an eccentric movement [425] with respect to the vertical spindle by means of the circumferentially-traveling roller 10? A. That is right.

Mr. TOWNSEND.—I offer this patent referred to by the witness, No. 1,124,553, dated January 12, 1915, "tool for capping and double-seaming cans," application filed December 19, 1913, in evidence as Defendants' Exhibit "V."

The WITNESS.—I think I made a mistake of a year there. I had no recollection about that time, but the patent shows.

Q. (By Mr. TOWNSEND.) Now, will you explain that statement for the record?

A. Of course there is nothing certain about either one of them, but I would judge from the application, from the date of the application as filed, that it must have been the summer of 1913 when I made the ring.

Q. You want your testimony corrected where you said vou thought you put this into use in the summer of 1912? You want that corrected to read the summer of 1913?

A. It must have been; yes.

Q. And, correspondingly, the building of your

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first machine was probably on a holiday of 1913 and not a holiday of 1912?

A. The building of the first seaming means would be on a holiday in 1913.

[426] Q. When did you discover that it was preferable or necessary to spin the can to effect the rolling of the seam in the use of your can-encircling means?

A. We never have spun the can at all, but that adapts itself to a better design, is simpler in construction, and higher speed. That is the reason we changed.

Q. And what was that change that you made?

A. Well, I say, by rolling the can around on what we call our first operation turret made a simpler design, and it is not a spinning operation, and does no damage to the can, or spilling the fruit, and it means a simpler design, a sturdier construction, and higher speed I would say.

Q. You object to my use of the word "spinning"? A. I do.

Q. Because in your mind it meant a relatively greater speed than the turning speed you give it?

A. Yes. It is not a case of spinning.

Q. I was rotating it in the sense of rotating a can, if you would rather have me use that term.

A. Yes, that would be better.

Q. Because for present purposes I had in mind the rotation of the can. So when did you make that change of rotating the can in the operation of turning the seam by means of your can-encircling

(Testimony of Ray O. Wilson.)

means from the method that you have already described [427] and as shown in this Defendants' Exhibit "V"?

A. Well, really, I don't know, Mr. Townsend, when that was; but I can say this, that it was one of the first ideas we had on the machine.

Q. Did you ever make another can-encircling means where the can was stationary?

A. No. Only as applied here. (Exhibit "V.")

Q. You never built a machine according to your invention referred to, complete, in which you used the seaming means such as shown in this patent of yours, Defendants' Exhibit "V," where the can was stationary? A. No.

A. I designed this machine while I was in Mr. Guenther's employ, at home; made all the drawings at home and designed the machine. I spent about six or eight months on that machine at home.

Q. And while you were still in Mr. Guenther's employ? A. Yes.

[429] Q. (By Mr. TOWNSEND.) Did I understand you to say that you made all these drawings yourself? A. Yes.

Q. Now, just explain what drawings those were.

A. A complete—well, it was not exactly a complete—it was more or less of a mixup of drawings, I admit, but I made all of the drawings. They were pen and ink drawings; not very high class drawings, but with a little explanation we could read them. I made those drawings.

Q. A fair exercise of imagination?

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(Testimony of Ray O. Wilson.)

A. That is it exactly.

Q. Were they made to scale? A. Yes.

Q. Did you have any particular machine or parts to go by for scaling your drawings? A. No.

Q. Now, going back to this can-encircling means which you designed and built while you were in the employment of Mr. Guenther's company in 1913, as you have testified, can you [430] tell us what suggested that particular form of seaming means?

A. When Mr. Summer was there he had the idea of a die; see?

Q. Of what?

A. Of this here curling die that we now use.

Q. A curling die?

A. Yes, we call it a curling die. And after two or three days of drawing it out and changing it here and there we finally arrived at the one we put on the 14–P.

Q. Was this curling die suggested in any way by the centering ring of Exhibit "P"—and by Exhibit "P" I mean like the device in use to which you have testified?

A. Well, really I couldn't tell what suggested the idea to Mr. Sumner. In the first place, I don't know where he got it. He came in the shop with it, though, and he had some kind of an idea about a curling die, rolling something around the outside of the can, and we fussed around with it for a couple of days before we were satisfied with it, and then we went ahead on the thing. Where an idea originates is pretty hard to get at.

(Testimony of Ray, O. Wilson.)

[431] Q. You are not able to state that the idea of your can-encircling ring or seam-rolling means that you have spoken of was generated from this can-centering means of the defendant? A. No.

Q. You don't think that it had its germination in the defendants' form of structure?

A. I wouldn't say yes or no. I don't know where the idea emanated from.

Q. How long had this structure of Defendants' Exhibit "P," the seaming roller head, been used by Mr. Guenther before you got up this idea of your can-encircling means? How long was it in use, to your knowledge? A. I would say two years.

Q. You are familiar with the Angelus can top curler by [432] which the flange on the can head is curled, exemplified by the can top defendants' Exhibit "R" (showing same)? A. Yes.

Q. How long have you known of that machine?

A. Well, it was made shortly after I went to work for Mr. Guenther.

Q. And that can top curler is illustrated, for example, on page 11 of the Angelus circular for automatic can machinery, general catalog of 1918, which I show you.

A. Yes. Yes, I did some work on that when I was working for him.

Mr. TOWNSEND.—I offer this catalog as Defendants' Exhibit "W."

Mr. BLAKESLEE.—We object to that unless its antiquity is proven. It is not material as a

current publication. It cannot be material in respect to novelty or invention.

Mr. TOWNSEND.—It is illustrative of the witness's testimony, which I am going to follow up.

Mr. BLAKESLEE.—The testimony does not need illustrating, and unless the evidence is material it cannot be proper.

The MASTER.—We will receive it as preliminary.

Q. (By Mr. TOWNSEND.) You do not recall the fact that you got your idea for your can-encircling means shown in your patent, Defendants' Exhibit "V," from this can curler of Angelus which you knew about and worked on at the time you were there in Guenther's employ?

[433] Mr. BLAKESLEE.—We object to that as immaterial and not proper cross-examination, because where an idea originated is not material. Patents are not for ideas; patents, when they are for mechanisms, are for tangible things, and whether or not, remotely, an idea had its genesis in something else is absolutely immaterial. The structures speak for themselves by comparison, and whether or not the inventors of the patent referred to in some way developed their structure from a prior thing which was different is immaterial.

Mr. TOWNSEND.—This is merely a part of the entire examination of this witness. We have touched upon the Exhibit "P" as being contributory to the alleged invention that is here involved.

The MASTER.—You are not suing them for infringement.

Mr. TOWNSEND.—No; but I am showing that the ideas here involved in these patents came from Guenther, and it is not that Guenther's machine came from them.

Mr. BLAKESLEE.—But the patent is not for ideas.

The MASTER.—Now, let me inquire here: This is only part of the structure?

Mr. TOWNSEND.—Yes, surely. I cannot show it all at once.

The MASTER.—You want to show that they got this idea from Mr. Guenther, and then that idea, and then the other, and so forth.

Mr. BLAKESLEE.—Now, if the Master please, so far as counsel can go is to get the witness to admit, if he can, [434] that these things were known to himself and Mr. Sumner prior to the date of application for patent; then counsel can attempt to show an analogy or resemblance between them; but it calls for a conclusion of the witness, further, for him to state that he got an idea as to a thing of his patent from another and dissimilar thing.

The MASTER.—He would know whether he got his own idea from that.

Mr. BLAKESLEE.—Well, counsel cannot make it appear that one of these earlier things is the father of a later and dissimilar thing by questions

calling for nebulous answers as to the similarity of mere abstract ideas.

(Last question read.)

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The MASTER.—I think he answered that before. Mr. BLAKESLEE.—The further objection is made that there is no pleading in this case that any patent in suit was anticipated by these devices referred to, and therefore the examination is absolutely immaterial.

The MASTER.—It goes to the question of invention.

Mr. TOWNSEND.—Of course.

The MASTER.—What do you say, Mr. Wilson? A. I think I answered that in the prior question when I said that Mr. Sumner had the original idea. Where he got it from, I don't know.

Q. (By Mr. TOWNSEND.) Then that curling die was not your idea at all; is that right?

[435] A. Well, the idea that he had, as shown to me, was unreliable, you see, and the two of us worked it out. That is the reason. He would not come in and take something without giving me something, so he gave me something.

Q. You know this curler is a curling die, as it is called? A. Yes.

Q. Referring now to the cut on page 11 of Exhibit "W." A. Yes.

Q. They refer to that as a curling die, do they not?

A. The inner and outer curling ring. I have heard them use that term. This machine is manu-

(Testimony of Ray O. Wilson.)

factured by three or four different concerns. I remember the first one that came in to the L. A. Can Company, I think it was the McDonald curler, which is the father of this one, I would say. We call them an inner and outer curling ring.

Q. And those were in open and motorious use at the time you were working there when Mr. Guenther was helping you? A. Yes.

Q. By referring to the drawings on your patent here in suit, No. 1,203,295, can-heading machine, and forming part of Plaintiffs' Exhibit 3, can you tell by reference to these drawings, of which there are nine sheets, what portions you personally had laid out in the way of drawings as yau have referred to, before you left Mr. Guenther's employ? Just examine those nine sheets carefully and tell me what drawings that you had made up corresponded to those figures, if any. [436] I don't mean in all absolute details, but generally.

A. Well, as I say, I had a complete set of drawings of each and every part of the thing, in a way, you see. You use your imagination to make a complete machine drawing.

Q. (By the MASTER.) Were your drawings anything like the patent drawings?

A. No. There was one assembly drawing similar to this.

Q. (By Mr. BLAKESLEE.) That is, similar to which figure there?

A. Similar to Fig. 2; and I had a layout some-

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thing like Fig. 1, I remember that; and then the rest were detail drawings.

Q. Well, what gave you the idea of a machine of that character?

A. That I don't know. I can't recall where that idea originated, of that design. It might have been with Sumner and it might have been with myself. We fussed around on it for quite a while.

Q. Did that idea you had, and which you say was embodied in the drawings, show a two-turret machine or a single-turret [437] machine, or what kind of a machine?

A. It showed the two-turret machine.

Q. Well, don't you know where you got the two turret idea?

A. No, I do not. If you are referring to the Black or the Johnson machine, that machine was almost completed and ready to run before I ever heard there was a Black machine or a Johnson machine.

Q. (By Mr. BLAKESLEE.) By Johnson machine you refer to those patents that we had laid out before you here before, at one of our sessions, some time ago?

A. Yes; Mr. Augensen had them.

Q. (By Mr. TOWNSEND.) Yes. Now, just what was that, again? How far had you progressed before you had heard of the Black machine or the Johnson machine?

A. The machine was almost ready to run, within a week or so. We put the belt on down at the

Smith-Booth-Usher plant before I had ever heard of the Johnson or Black machine. I think that stands true of Mr. Sumner too.

Q. Where and under what circumstances did you first hear of the Black and Johnson double-turret machine?

A. Mr. Spencer spoke of it. He said it was similar to the Black or Johnson machine. I think it was the Johnson machine he referred to. He said it resembled that.

Q. What Spencer was that?

A. T. J. Spencer, manager of the L. A. Can Company.

Q. Is Mr. Spencer living? [438] A. Yes.

Q. Still with the L. A. Can Company?

A. Yes.

Q. (By Mr. TOWNSEND.) Well, what were the features of similarity that Mr. Spencer called attention to between your machine and the Johnson machine?

Mr. BLAKESLEE.—Same objection. It is not material, and it is not the proper method of proof, because those machines are the best evidence as to what they show and not what somebody else said about them,

The MASTER.—I think that is true.

A. Mr. Spencer said nothing to me, but I remember Sumner coming to me and telling me that Spencer had said something about that, and we went down to my attorney and looked it up.

Mr. BLAKESLEE.—Then we move to strike it

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all out as certainly [439] hearsay, coming from another person than this witness.

Mr. TOWNSEND.—Well, we will have to get Mr. Sumner. We don't want improper evidence, of course.

The MASTER.—It may remain in. These patents are not pleaded as anticipation, are they— Black and Johnson?

Mr. TOWNSEND.—Yes. They are long anterior to these patents.

Mr. BLAKESLEE.—Well, they speak for themselves. Both counsel and myself will have an opportunity to show them up, and will do so.

Q. (By Mr. TOWNSEND.) Now, most every invention has a beginning: didn't your invention have some beginning, and can't you recall what that beginning was?

A. I thing I have, as near as I possibly can.

Q. What did you do—simply take a drawing board and lay this thing down—

A. That is it exactly, yes.

Q. —without any previous thought or idea about it? A. Yes.

Q. And you put one turret here and you put another turret there?

A. That is it.

Q. How about your can-feeding means that you show in that patent 1,203,295?

A. Well, it was not very good feed.

Q. After you built it it wouldn't function very satisfactorily?

[440] A. It would in the factory, yes, but not in the cannery. Where the idea originated from I don't know. Whoever originated the idea did us an injury there on that. I don't know where it came from.

[441] Q. (By Mr. TOWNSEND.) Referring more particularly to the can and top feed of this same patent 1,203,295 forming part of Plaintiffs' Exhibit 3, in Fig. 1 and Fig. 20, how did that idea originate?

Mr. BLAKESLEE.—We object to that as calling for a conclusion of the witness. Every invention is presumed to be based upon a conception, and that conception may come very quickly or by a process of development.

The MASTER.—Well, let him tell what he knows about that.

A. I really don't know where the ideas—I couldn't cite a single instance on the machine and how and where the idea originated from, because we would get together nights and Sundays and work on the thing, and it was a long time ago.

Q. How did this can and cap feed in Fig. 20 in the patent [442] work out in practice?

A. Well, we re-designed it and put on our later feed, which is covered by, I think, No. 2 patent we have here.

Mr. BLAKESLEE.—Patent 1,250,406.

The WITNESS.—Yes, I think that is it. This is the only one we ever built like this on the first machine.
The MASTER.—A little louder.

A. I say, this is the only feed just like this. The only one like this was put on the first machine, and after that the other one was installed on each machine.

Q. (By Mr. TOWNSEND.) You mean that the only one you built was like this according to Fig. 20 of your patent 1,203,295?

A. Yes.

Q. And then you re-designed it? A. Yes.

Q. Corresponding to your other patent 1,250,406, dated December 18, 1917, attached to and forming part of plaintiffs' Exhibit 2 (exhibiting same)?

A. Yes, that is it.

[445] The MASTER.—Before we get away from the revolving encircling means, let me see if I have it correctly. In the plaintiffs' machine they have an encircling means which operates on the can top by means of a cam during the first operation while the can itself is revolving about one and a quarter times. In the second operation they have rollers to roll the same down. And in the defendants' device they use Exhibit "P" in both operations.

Mr. TOWNSEND.—No, they use a little different form of roller in the second operation to roll down the seam. The can revolves in the second operation, but is stationary in the first operation.

The MASTER.—You have a different form of roller in the second operation, then?

(Testimony of Ray, O. Wilson.)

Mr. TOWNSEND.—I think that shows in some of our blue-prints on file.

[446] The MASTER.—Your photographs show the same thing, apparently.

[447] AFTERNOON SESSION-2 o'clock.

RAY O. WILSON recalled.

Cross-examination (Resumed).

(By Mr. TOWNSEND.)

Q. Have you the papers we asked for, Mr. Wisson? A. Mr. Blakeslee has them.

[449] (The document last above referred to is in the words and figures following, to wit:)

"EXCLUSIVE TERRITORIAL GRANT BY OWNERS.

WHEREAS, Arthur D. Sumner and Ray O. Wilson, of Los Angeles, California, did, on August 10th, 1914, file an application in the United States Patent Office for Letters Patent on 'CAN HEAD-ING MACHINE,' the Serial Number of which is 856117, and

WHEREAS, the said Arthur D. Sumner and Ray O. Wilson did, on this day, December 21st, 1914, make an Assignment in writing to F. F. Stetson, of Los Angeles, California, of an undivided forty per cent of said application, invention and Letters Patent to be issued on the same, and

WHEREAS, Arthur D. Sumner, Ray O. Wilson and F. F. Stetson are the owners of said abovenamed application and invention, and 1

WHEREAS, the said F. F. Stetson is desirous of acquiring the exclusive right, title and interest in and to said application, invention and Letters Patent to be issued on the same for, to and in the State of California,

NOW, THEREFORE, the said Arthur D. Sumner, Ray O. Wilson and F. F. Stetson, for and in consideration of Ten Dollars (\$10.00) Gold Coin of the United States, together with other good and valuable considerations, in hand paid to them by the said F. F. Stetson, the receipt of which is hereby acknowledged, do hereby grant, sell, convey, assign, transfer and set over to the said F. F. Stetson, of Los Angeles, California, his legal representatives and assigns, for the term for which said respective Letters Patent have been granted and issued or may be granted, issued, or extended, the sole and exclusive liberty, right and privilege of practicing the said invention and manufacturing, using and selling to others to be used, devices and machines embodying the said invention or licensing others to practice the said invention and to manufacture, sell or use devices and machines embodying the same for, to and in the State of California and for, to and in no other place or places whatsoever, in the same force and effect as the said Arthur D. Sumner, Ray O. Wilson and F. F. Stetson, themselves, could so practice the said invention and manufacture, use, or sell to others to be used, devices and machines embodying the said invention or license others to practice the said invention, or manufacture, sell or use devices and machines embodying the same for,

to and in the said state aforesaid had this license not been granted.

IN WITNESS WHEREOF, the said Arthur D. Sumner, Ray O. Wilson and F. F. Stetson have hereunto set their hands and seals on this the 21st day of December, A. D. 1914.

[450] ARTHUR D. SUMNER. (Seal)

RAY O. WILSON. (Seal)

F. F. STETSON. (Seal)

In presence of:

E. A. MILLER,

J. E. HAYES.

State of California,

County of Los Angeles,—ss.

On this 21st day of December, 1914, before me, E. A. Miller, a Notary Public in and for said County of Los Angeles, State of California, personally appeared Arthur D. Sumner, Ray O. Wilson and F. F. Stetson, known to me to be the persons who executed the within instrument and acknowledged to me that they executed the same.

WITNESS my hand and official seal the day and year in this certificate first above written.

[Seal] E. A. MILLER, Notary Public in and for the County of Los Angeles,

State of California.

My commission expires March 20th, 1918.

Recorded Jan. 12, 1915. U. S. Patent Office.

DEPARTMENT OF THE INTERIOR,

United States Patent Office.

Received and Recorded on the 12th day of Janu-

ary, 1915, in Liber T, 96, page 338 of Transfers of Patents.

In Testimony Whereof, I have caused the seal of the Patent Office to be hereunto affixed.

THOMAS' EWING,

Commissioner of Patents.

Excl.

H.S.W."

Q. (By Mr. TOWNSEND.) Now, that does not seem to reach the point we were on this morning and to which the testimony I quoted from as given by you at different sessions related, concerning the exclusive rights of the L. A. Can Company in these patents. Have you that paper?

A. Evidently not; no.

Q. Well, do you have it personally?

A. No.

Q. Who would have that?

[451] A. Mr. Stetson, if there is one in existence.

Mr. TOWNSEND.—That is the paper or one of the papers that were expressly asked for this morning, the paper showing the vested interests, whatever they may be, of the L. A. Can Company in these patents in suit. I do not see any way but to issue a *subpoena duces tecum* to get them if we cannot get them here by their voluntary production.

The MASTER.—Isn't Mr. Stetson here?

Mr. TOWNSEND.—Yes, he is here.

Mr. BLAKESLEE.-I don't know of any such

(Testimony of Ray, O. Wilson.)

paper. That is the paper I saw the other day, I am very sure.

The MASTER.—Well, ask Mr. Stetson if there is such a paper.

Mr. TOWNSEND.—Well, he is not on the stand now. Of course we cannot charge counsel for the production of these papers. He ought to prevail upon his client to assist us here rather than compel us to resort to process to bring in these papers that they state are in existence.

Mr. BLAKESLEE.—That is what we are doing. We brought this paper that you asked for. Another paper has been submitted to me which bears upon an entirely different device not involved in this suit at all. That is the only one we can find which meets the trend of your questions.

Mr. TOWNSEND.—This paper only refers to a then pending application, serial No. 856117.

Mr. BLAKESLEE.—Which is the serial number of patent Exhibit No. 3 in this case.

[452] Q. (By Mr. TOWNSEND.) Now, was there any other paper of a like nature that you and your co-owners made to Mr. Stetson or the L. A. 'Can Company affecting the other two patents in suit? A. Not that I know of.

Mr. TOWNSEND.—Mr. Blakeslee, can you give any light on that? You can consult Mr. Stetson who is here in the courtroom.

Mr. BLAKESLEE.—I have consulted Mr. Stetson and he has brought me every paper he could find which he thought bore on it, two in number, 1

and one is the paper which has been here spread on the record, and the other is a paper which you are at liberty to se if you wish, and which pertains to an application serial number not involved in this suit at all.

Mr. TOWNSEND.—Does it involve any one of the four patents concerned in this suit?

Mr. BLAKESLEE.—Not at all. This has been recorded (producing second document), so it is a matter of public record. "Tool for Capping and Double-Seaming Cans," serial No. 808925, which is not the serial number of any one of these patents, and it is obviously immaterial here.

The MASTER.—Is it your understanding, Mr. Blakeslee, that the agreement between Mr. Stetson and the L. A. Can Company is oral?

Mr. BLAKESLEE.—So far as I know. I have seen no paper that shows it.

[453] Mr. TOWNSEND.—This exclusive territorial grant you have just handed me, Serial No. 808925, seems to correspond with the serial number of Sumner and Wilson patent 1,124,553, "Tool for Capping and Double Seaming Cans," originally sued upon and withdrawn.

Mr. BLAKESLEE. — (Examining document) Yes, you are correct. I didn't check it with that patent that had been withdrawn. If you want that put in it may go in, of course.

Mr. TOWNSEND.—I think it had better go in and then it may be returned to you. This paper is entitled: "Exclusive Territorial Grant by Owners,"

purporting to be dated December 21, 1914, "recorded in the U. S. Patent Office January 12, 1915, in Liber G, 96, page 319 of Transfers of Patents."

Mr. BLAKESLEE.—We have no objection to its being copied into the record, other than that it is immaterial inasmuch as that patent has been withdrawn. Subject to that objection, we consent to its being copied into the record.

The MASTER.—It will be received subject to that objection.

(The document last above mentioned is in words and figures following, to wit:)

"EXCLUSIVE TERRITORIAL GRANT BY OWNERS.

WHEREAS, Arthur D. Sumner and Ray O Wilson, of Los Angeles, California, did, on December 19th, 1913, file an application in the United States Patent Office for Letters Patent on 'TOOL FOR DOUBLE SEAMING CANS,' the Serial Number of which is 808925, and

WHEREAS, said Application for Letters Patent was allowed August 20th, 1914, and

WHEREAS, the said Arthur D. Sumner and Ray O. Wilson and [454] F. F. Stetson, of Los Angeles, California, are now the owners of said above-mentioned application, invention and Letters Patent to be issued on the same, in the following proportions, viz.: Arthur D. Sumner Thirty per cent. (30%), Ray O. Wilson thirty per cent. (30%) and F. F. Stetson forty per cent (40%) thereof, and WHEREAS, the Los Angeles Can Company, a corporation organized and existing under and by virtue of the laws of the State of California, with its principal place of business at Los Angeles, California, is desirous of acquiring the exclusive right, title and interest in and to said application, invention and Letters Patent to be issued on the same for, to and in the State of California,

NOW THEREFORE, the said Arthur D. Sumner, Ray O. Wilson and F. F. Stetson, for and in consideration of Ten Dollars (\$10.00), Gold Coin of the United States, together with other good and valuable considerations, in hand paid to them by the said Los Angeles Can Company, a corporation, the receipt of which is hereby acknowledged, do hereby grant, sell, convey, assign, transfer and set over to the said Los Angeles Can Company, a corporation, of Los Angeles, California, its legal representatives and assigns, for the term for which said respective Letters Patent have been granted and issued, or may be granted, issued or extended, the sole and exclusive liberty, right and privilege of practicing the said invention and manufacturing, using and selling to others to be used, devices and machines embodying the said invention or licensing others to practice the said invention and to manufacture, sell or use devices and machines embodying the same for, to and in the State of California and for, to and in no other place or places whatsoever, in the same force and effect as the said Arthur D. Sumner, Ray O. Wilson and F. F. Stetson, themselves, could so practice the said invention and manufacture, use, or sell to others to be used, devices and machines embodying the said invention or license others to practice the said invention, or manufacture, sell or use devices and machines embodying the same for, to and in the said state aforesaid had this license not been granted.

IN WITNESS WHEREOF, the said Arthur D. Sumner, Ray O. Wilson and F. F. Stetson have hereunto set their hands and seals on this the 21st day of December A. D. 1914.

E. A. MILLER.

J. E. HAYES."

State of California,

County of Los Angeles,—ss.

On this 21st day of December, 1914, before me, E. A. Miller, a Notary Public in and for said County of Los Angeles, [455] State of California, personally appeared Arthur D. Sumner, Ray O. Wilson and F. F. Stetson, known to me to be the persons who executed the within instrument and acknowledged to me that they executed the same.

WITNESS my hand and official seal the day and year in this certificate first above written.

[Notarial Seal] E. A. MILLER, Notary Public in and for the County of Los Angeles,

State of California.

My commission expires March 20th, 1918.

DEPARTMENT OF THE INTERIOR,

United States Patent Office.

Received and Recorded on the 12th day of January, 1915, in Liber G, 96, page 319 of Transfers of Patents.

In Testimony Whereof, I have caused the seal of the Patent Office to be hereunto affixed.

THOMAS EWING.

Commissioner of Patents.

Excl.

H.N.L.

Q. (By Mr. TOWNSEND.) Now, in regard to the other two patents in suit, corresponding to Plaintiffs' Exhibits 1 and 2, have the L. A. Can Company any rights under those patents?

A. We have always worked to that end and considered it that way. They have rights to the machine and practically all new developments that come up.

Q. Are those rights identical with the rights conveyed by these two instruments we have just copied into the record?

Mr. BLAKESLEE.—That calls for a conclusion of the witness.

The MASTER.—Yes.

Mr. TOWNSEND.—We don't seem to have any other way of establishing it.

A. Personally I have always considered that they did have [456] those rights in the machine and every improvement we put on it.

(Testimony of Ray O. Wilson.)

Q. (By Mr. BLAKESLEE.) In other words, a license for the State of California; is that your understanding? A. Yes.

Mr. TOWNSEND.—Now, pardon me. These two conveyances here are not licenses, they are exclusive grants.

Mr. BLAKESLEE.—That is a question. It is not drawn by a patent lawyer, and whether it is a grant or license is something that at this time cannot be passed upon.

Mr. TOWNSEND.—We will have to pass up the inquiry until we have some officer of the L. A. Can Company to testify on the subject.

Q. Now, what have you to say as to the interest of the Pacific Closing Machine Company under these patents or any of them?

A. I brought the minute-book up there, which I think will clear that side of it up. Mr. Blakeslee has that.

Mr. BLAKESLEE.—The minute-book I do not think we will want to submit. I will state that I have examined it and it recites nothing as to any transfer. It does make recitals as to certain payments to be made to the L. A. Can Company, but it does not recite any transfer in any respect, and I don't think, for that reason, that the minute-book should be introduced here.

[457] The MASTER.—Mr. Townsend, did you ask Mr. Wilson if the Pacific Closing Machine Company had any interest in the patent?

Mr. TOWNSEND.—Yes, in four places in the record. For instance, on page 203 (reading). Now, presumably they have [458] granted the same kind of rights to the Pacific Company, made the same sort of a grant; for the Pacific Coast outside of California, that they granted to Mr. Stetson here in these two documents we have just had produced.

The MASTER.—Why not ask him what they did grant?

Mr. TOWNSEND.—I have tried to find out.

Q. Will you answer the question as suggested by the Master? What did you grant to the Pacific Company?

A. It is pretty hard for me to answer that question, because, really, I don't know anything I could say that would help you out at all, because we just naturally drifted into it the same as with the L. A. Can Company. There is no document between the two, only what is on the minute-book there.

Q. (By the MASTER.) Did you give them any right to license anybody else? A. No.

Q. (By Mr. TOWNSEND.) Now, what did you grant, you and the others having the right to these patents, to the Pacific Closing Company?

A. I should think there was no grant made. In other words, the three of us are the main stockholders in the Pacific Closing Machine Company, and that is just the instrument for building machines

Q. Are you three the only stockholders of the Pacific Closing Company? A. No.

[459] Q. You have other stockholders?

A. Yes.

Q. And you have issued stock under the authority of the Corporation Commissioner of the State of California in the Pacific Closing Machine Company?

A. Yes.

Q. And I presume the Pacific Closing Machine Company attributes some value to whatever those rights may be to manufacture under those patents, does it not?

A. I should think it naturally would.

Q. Now, do you want the Court to believe that the Pacific Closing Machine Company was organized to build these machines and to have gone on and built them, and that you have got [460] other stockholders in here and you haven't anything but a hazy, feathery sort of right under those patents?

Mr. BLAKESLEE.—I think that question is a little far-fetched. Things that are hazy and feathery are not on paper; they may be on birds in the sky.

The MASTER.—Tell what their rights are there; that is the quickest way to get at it.

A. I should think it would come under the same category as the rights to the L. A. Can Company. They have the exclusive right to California, we will say, and we have always understood it that way. The same thing applies to 'the Pacific Closing Company. I don't think I can make it any clearer than that.

Q. (By Mr. TOWNSEND.) Now, how many States are included in this grant to the Pacific

Closing Company, say on the Pacific Coast, excluding California?

A. All those west of the Rocky Mountains.

Q. Will you name them?

A. Well, they would be Washington, Idaho, Oregon, Utah, New Mexico, the Hawaiian Islands, and Alaska, and Nevada. That would probably cover them.

Q. Now, the grant to the Pacific Closing Company in those States, according to your understanding, is the same in form and substance as that shown in those two papers—concerning those two previously mentioned papers that have been copied into the record by stipulation a few minutes ago?

[461] Mr. BLAKESLEE.—We object to the question as calling for a legal conclusion on the part of the witness. That may be very important, because the word "grant" is used, which has a significance to lawyers which it may not have to laymen, and I do not think by using technical terms on cross-examination anything can be gained here.

Q. (By Mr. TOWNSEND.) I don't care whether you call it a grant or a license or an assignment or anything else, I want to know whether that is your understanding of the rights to be conveyed, to be substantially identical with the form shown in these two papers which have been copied into the record since our meeting this afternoon.

Mr. BLAKESLEE.—We object on the ground the question calls for a legal conclusion, and I do not think you can get at it in any such way.

(Testimony of Ray O. Wilson.)

The MASTER.—It could not be the same form, because he says it was oral.

Q. (By Mr. TOWNSEND.) Well, I am not trying to split hairs on the thing, but whether the rights granted are the same kind of rights and to the same extent. Is that clear?

Mr. BLAKESLEE.—I don't think the witness is qualified, and I think it calls for a conclusion of the witness.

The MASTER.—That is a conclusion. You might ask him what rights they have, and to specify them, the particular ones you want to know about.

Mr. BLAKESLEE.—Now, the trouble with that, your Honor, is [462] this, that this testimony cannot help them at all, because if it is a grant, there being three types of transfer of rights—one by grant, one by license, and one by assignment if it is a grant it must be in writing; if it is an assignment it must be in writing; if it is a mere license, however, it might be parol; but if it is a mere license the question is immaterial because the licensee is not a necessary party; so I don't see where the question can get us.

Mr. TOWNSEND.—I don't see why they want to keep this thing under cover and not let us have the whole title.

Mr. BLAKESLEE.—We don't. We produced everything we could find.

Q. (By Mr. TOWNSEND.) Now I have read the conveyance in this paper which has been copied into the record of "Exclusive Territorial Grant by

Owners" of application serial No. 856117, "Can Heading Machine," which application corresponds to the patent of Plaintiffs' Exhibit 3, and the grant reads as follows: "Now, Therefore, the said Arthur D. Sumner, Ray O. Wilson and F. F. Stetson, for and in consideration of Ten Dollars (\$10.-00), Gold Coin of the United States, together with other good and valuable considerations, in hand paid to them by the said F. F. Stetson, the receipt of which is hereby acknowledged, do hereby grant, sell, convey, assign, transfer and set over to the said F. F. Stetson, of Los Angeles, California, his legal representatives and assigns, for the term for which said respective letters patent have been granted and issued, [463] or may be granted, issued, or extended, the sole and exclusive liberty, right and privilege of practicing the said invention and manufacturing, using and selling to others to be used, devices and machines embodying the said invention or licensing others to practice the said invention and to manufacture, sell or use devices and machines embodying the same for, to and in the State of California and for, to and in no other place or places whatsoever." Now, is that the kind of conveyance or right that the Pacific Closing Company has?

Mr. BLAKESLEE.—We object to that on the same grounds. Furthermore, it is impossible of answer. Where an arrangement is merely verbal, as is the case here, if there is an arrangement, it would be impossible for a layman at least to have a defi-

nite mental concept of such agreement as would coincide with such formal language. It calls absolutely for a conclusion of the witness.

The MASTER.—I think you will shorten the matter by letting him answer.

A. No.

Q. (By Mr. TOWNSEND.) Well, what has it got?

A. Well, I should think this would explain it. The Pacific Closing Company was organized by the three patentees—

Q. (By Mr. BLAKESLEE.) Sumner, Stetson and Wilson?

A. Sumner, Stetson, and Wilson; and it was organized for building this machine. Naturally, the rights would go to it. The first was the Sumner-Wilson company, then the Stetson [464] Machine Company, and then they incorporated into the Pacific Closing Machine Company, and, naturally, the rights went right along with it. If the patentees would withdraw, particularly one, Mr. Stetson, there would be very little of the Pacific Closing Machine Company left; so in other words, I think it would be a licensee, the same as we contract our work out some place else to be built.

Q. (By Mr. TOWNSEND.) Do you want us to understand or believe that there is not a scratch of a pen between you three gentlemen and the Pacific Closing Machine Company?

Q. (By the MASTER.) Is there anything else you can tell us about this thing, Mr. Wilson?

A. No.

Q. (By Mr. TOWNSEND.) Now, isn't there a scratch of the pen [465] showing the arrangement, whatever it is, between you gentlemen and the Pacific Closing Machine Company?

The MASTER.—That is a proper question. It is another way of asking him whether it is in writing.

Mr. BLAKESLEE.—He has already answered it.

Q. (By the MASTER!) Is there any writing at all?

A. Nothing that bears on a license or a grant, that I know of.

Q. (By Mr. TOWNSEND.) Is there anything else that bears on the subject at all?

A. Not that I know of.

Q. Well, you would have been a signatory to that, would you not? A. I would.

Q. And you would know if there was such a paper?

A. It is possible that I could forget it if there had been, but I say there is none that I know of.

[467] The MASTER.—I don't see but what Mr. Wilson has testified as frankly as he can remember here. The transaction looks all right to me. Now you may be able to produce some other evidence here later.

Mr. TOWNSEND .--- I think we should be permitted to see the minutes affecting this thing in the points where Mr. Wilson thinks it has bearing.

(Testimony of Ray O. Wilson.)

The MASTER.-Not without further foundation.

Q. (By Mr. TOWNSEND.) Did you ever talk with the Board of Directors in a meeting duly assembled as to what their rights should be?

A. I know we have talked that there should be an agreement between the patentees and the Pacific Closing Machine [468] Company.

Q. With whom did you do that talking?

A. In the directors—at the meeting of the Board of Directors.

Q. Was there any record made of that talk?

A. Now, whether we went into the minutes or not I don't know. I know they were all present. It might have been just an informal meeting and not recorded. But I remember of a conversation along that line, that there should be some agreement, and that was not much over six or seven months ago.

Q. What directors were present at that time?

A. The full quota.

Q. And who were those directors? Name them.

A. Mr. Sumner, Mr. Stetson, Mr. Irvin, Mr. Murray, and myself, and the secretary.

Q. (By the MASTER.) Have you directors talked between yourselves as to what your rights were—or what the corporation's rights were?

A. No. But to straighten out that tangle that evidently Mr. Townsend is trying to get the straight of now, we talked over that agreement between the patentees and the Pacific Closing Machine Company, to clear that up, you see.

[469] Q. (By Mr. TOWNSEND.) Now getting back to the drawings that you stated you had made of the completed machine—that is, drawings representing the entire machine, while you were still in Mr. Guenther's employ, and which drawings you stated showed a two-turret carriage, can you give us any more information as to what those drawings showed and what the different views were?

Mr. BLAKESLEE.—Our objection still runs to this whole examination as immaterial; that the patent speaks for itself, and the development of the patent is immaterial under the issues in this case. There is no attack upon it to prove prior invention by anyone else, and no race of diligence or priority of invention here.

[470] Mr. TOWNSEND.—I want to know what was done up to the time that he left Mr. Guenther's employ, and then I will follow on in the matter of—

The MASTER.—Do you desire to show that it belongs to Mr. Guenther because he did it before he left his employ?

Mr. TOWNSEND.—Well, what the legal consequence of it is I am not prepared to state at this time.

Mr. BLAKESLEE.—There is no such issue in the pleadings.

The MASTER.—The question of who is the inventor is not material, is it?

[471] The MASTER.—My recollection is that this morning I said I would let you ask him about certain dates he had already testified to, but I did

not intend to make any ruling as to the other point, because I didn't know what the law was.

Mr. TOWNSEND.—Suppose I re-frame the question.

The MASTER.—All right.

Q. (By Mr. TOWNSEND.) Did those drawings that you had prior to your leaving Guenther illustrate a plan view similar to Fig. 1 of this patent 1,203,295 contained in Plaintiffs' Exhibit 3?

Mr. BLAKESLEE.—We object to that as entirely immaterial, because there is no issue in this case that involves it.

The MASTER.—I will let him answer that because he has already answered it.

A. Well, it was not as fine as to detail, but it had the general outline of that kind of a drawing.

Q. (By Mr. TOWNSEND.) Who made that drawing? A. That I don't know.

Mr. BLAKESLEE.—You mean the drawing of the patent?

Mr. TOWNSEND.—No, the drawing of the—

A. Oh, I made that drawing myself.

Q. How big a drawing was it?

[472] A. I think it was half scale.

Q. What do you mean by "half scale?"

A. Half the size of the machine.

Q. And how big would that sheet be?

A. Approximately 24 by 36.

Q. Did you have any assistance in making it?

A. No assistance as far as making the drawings, no.

Q. Did you have any assistance in the composition of it? A. Yes.

Q. By whom? A. Mr. Sumner.

Q. What are Mr. Sumner's initials?

A. A. D.

Q. Did you have any assistance from anybody else? A. Not that I know of.

Q. Did anybody else make any suggestions about that drawing or any of the drawings? A. No.

Q. Now, in regard to the drawings, at that time did you have any that would correspond to sheet 2 of this patent 1,203,295?

A. Yes, I had one similar to that.

Q. Did that drawing show a bell crank for the second operation seaming roller, which bell crank is marked "127" on this Figure?

Mr. BLAKESLEE.—We object to that specific question. It has been answered before, and it is immaterial.

[473] The MASTER.—It seems to be immaterial; but I will let him answer.

A. I don't remember.

Q. (By Mr. TOWNSEND.) Did the drawings you had show a second seaming operation?

A. I had some drawings showing that. Naturally it would have to.

Q. What form of second seaming operation did you intend using?

A. Approximately the same as shown in this cut.

Q. Patent 1.203,295?

(Testimony of Ray O. Wilson.)

A. Closer to scale, though, than these; but something like that; a roller, cam, a seaming roller, and adjustment.

Q. Would you have bell cranks like "142" and "125" on Fig. 8 of this patent?

A. The equivalent of that, yes. You must remember that is a patent drawing and not a scale. Mine was a scale, and patterns were made from them.

Q. Now that bell crank second seaming operation that you use there, wasn't that similar to the one they had on the 14–P?

Mr. BLAKESLEE.—May it be shown that the same objection of immateriality stands to this whole line of examination?

The MASTER.—If it is agreeable to Mr. Townsend.

Mr. TOWNSEND.—I think counsel had better make his objections as he goes along. The ruling may stand, of course.

The MASTER.—Well, we might just say "Same objection" and [474] "Same ruling."

(Last question read.)

Mr. BLAKESLEE.—Same objection.

The MASTER.—Same ruling.

A. I don't think there is any similarity about them.

Q. (By Mr. TOWNSEND.) How are they different?

Mr. BLAKESLEE.—Same objection.

A. Well, that is an adjustable bell crank; the one on the 14–P is not. That is operated directly from the cam, and the one on the 14–P is not.

Q. (By Mr. TOWNSEND.) You were familiar at that time, of course, with the second seaming operation of the 14–P? A. Yes.

Q. Did that operation of the 14–P at that time, that second seaming operation, compare favorably with this showing on Defendants' Exhibit "A" at the top of same, marked "Second Operation Seaming Station" (showing)?

A. You mean does this bell crank compare with the one I saw on the 14–P at the time I was working for Mr. Guenther?

Q. Well, generally, yes. A. Yes.

Q. (By the MASTER.) That is, does this drawing show the operation you were familiar with at that time? A. On the 14–P?

Q. Yes. A. Yes.

[475] Q. (By Mr. TOWNSEND.) You have already testified, Mr. Wilson, as I recall, that you built but one of these cap feeds such as shown in Fig. 20 of patent 1,203,295, Plaintiffs' Exhibit 3, and that then you changed to the form of your other patent, 1,250,406, Plaintiffs' Exhibit 2. Is that correct?

A. That is correct as far as I can recall now. I am sure we only built one of these—patent 1,203,295.

Q. Are you building the form shown in 1,250,406 now? A. In some cases, for repairs, yes.

(Testimony of Ray O. Wilson.)

Q. That is, just for repairs, where they are already out? A. Yes.

Q. This form 1,250,406, is it not the form that we observed on the plaintiffs' machine at the time of the inspection? A. No.

Q. When did you change over from 1,250,406 to the present form?

A. It has been about four years ago.

Q. And in all practically new machines you have you use the present form practically exclusively?

A. Yes.

Q. And the present form is the one we saw the other day where you kicked the cap in, as it were?

A. Yes.

Q. Do you recall how many of these devices, of patent 1,250,406, you built? Or take it the other way: for how long [476] you used it before you changed four years ago to the present form?

A. I should say we used this about three years; that is, patent No. 1,250,406, dated December 18, 1917, application filed January 14, 1916.

Q. You think you used that about three years?

A. I think so.

Q. And since then you have used this kicker arrangement? A. Yes.